

PlanMode App

Getting Started – a short tutorial

The PlanMode app can be used in unlimited ways to prepare a comprehensive personal financial profile for a lifetime or use it for a focused analysis of a financial situation at hand over a shorter period of time. The results produced in terms of financial reports and analysis are highly reflective of the detail and accuracy of the data entered. You may want to get a feel of the app before working on an actual situation. This brief tutorial is included to help you with such initial exposure.

Building a profile

The first step is to build a financial profile that defines the framework of the planning scenario. This can be done with just a few items of readily available personal and financial information. PlanMode helps you get started with an essential profile when you first invoke the app or start a new plan. This information is used to initialize a financial profile with necessary parameters related to age, income and expenses. With this initial structure you are ready to add or modify data and analyze the profile from all different perspectives of your choice.

Let us build a simple profile of a married couple (Noah & Sophia) with one child. The following information is readily available in approximate values -

1. Noah was born in 1980 and currently earns annual salary of 84,000 which is expected to increase on average 5% a year.
2. Sophia was born in 1981 and expects to net 76,500 in income from her share of a business partnership.
3. Annual living expenses of about 95,000 are expected to increase on average 4% a year.
4. They invest their cash in a money market fund which currently has 50,000. This account is expected to produce 2% annually in interest income.
5. Their checking account has 1,000 in it.
6. Noah participates in his company's retirement plan that currently has 28,000 in value. He contributes 4% of annual salary and the same amount is matched by the employer. This account is expected to grow by 3% a year.
7. They own a townhouse valued at 300,000 with no associated loan.
8. Personal assets are worth about 200,000.
9. They anticipate their daughter's college to cost 30,000 a year for 4 years starting in five years.
10. They plan on retiring when Noah is 65 years old.

Entering Data

When you invoke the app for the first time or when "Start New plan" option is selected the app displays the following Quick Plan Startup where some of the essential items of data can be entered-

QUICK PLAN STARTUP

Please enter applicable data below to initialize a new plan with this information and an appropriate planning span

Initiate a new plan for? Single or Married

| ITEM | HUSBAND | WIFE |
|--------------------------|---------|--------|
| First Name or Initials | Noah | Sophia |
| Year of Birth (eg. 1980) | 1980 | 1981 |
| Retirement Age | 65 | 64 |
| Current Annual Wages | 84000 | |
| Current Business Income | | 85000 |
| Annual Income Growth % | 5 | |
| Annual Living Expenses | 75000 | |
| Anticipated % Increase | 4 | |

Enter values that are readily available at this time. You can easily modify or reenter them later. Highly recommended for new users.

Enter the names, ages, income and expense items as shown above and touch Done. This would make the app initialize a new plan with the above information. It will now take you to the app's main menu. This is the central point of the app for data, analysis, reports and other actions.

Financial Profile ?

| | 2014 | 2015 |
|---------------------|----------------|----------------|
| Gross income | 169,000 | 177,450 |
| Income taxes | 54,408 | 57,610 |
| Net income | 114,592 | 119,840 |
| Cash inflow | 169,000 | 177,450 |
| Cash outflow | 129,408 | 135,610 |
| Net cashflow | 39,592 | 41,840 |
| Liquid assets | 39,592 | 81,432 |
| Total assets | 39,592 | 81,432 |
| Net worth | 39,592 | 81,432 |

| | | |
|----------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------|
| Cash accounts | Stocks & Bonds | Income |
| <input type="text"/> | <input type="text"/> | 169000 |
| Retirement acts | Bus Inv RealEst | Expenses |
| <input type="text"/> | <input type="text"/> | 75000 |
| Insurance | Other assets | Liabilities |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |
| <input type="button" value="Options"/> | <input type="button" value="Advanced"/> <input type="button" value="Married"/> | <input type="button" value="Reports"/> |

Your initial data is shown in the Income and Expense category of the main menu. You can now enter the remaining data or modify existing items. Let us input one item at a time. Data can be input in any order that suits your convenience.

For most data items you will need to enter the current value of the item (in the first year) and the annual growth that would determine its value in future years. Annual growth factors can be entered under the tab **Growth Projections** that is available in the **Advanced** section. When entering values of an input item you can simply enter the current year value in the input box if this value is supposed to grow by the factor entered in the **Growth Projections**. Otherwise, use the Expression input method to input the current value and the projection factor(s) as an expression as follows.

The list of input items for entering data is shown in two colors; **Shades of Green** and **Shades of Blue**.

The items shown in **shades of Green** can be projected individually with needed growth factors. You can enter the current value and projected growth as a single expression input.

The items shown in **shades of Blue** can only be projected via the growth factor entered in overall Growth Projections.

Use the Expression method to enter the current and projected values together when inputting an item. With this method you can project each item as needed individually. For example-

Current salary of 80,000 projected to increase by 10% next year, 6% in year 3 and 4% thereafter can be entered as:
80000,%10,%6,%4

A current year expense of 6000 to decrease by 2000 each of next 3 years can be input as an Expression as:
6000,-2000,-2000,-2000,0


Expression input method can be selected by using a long click on the input box (tap at the middle of the white input box for about 2 seconds until the Projection expression box appears). Similarly you can change the title of the item by a long click on the title.

Let us first enter item values and then go to the growth category to input growth factors.

Data Input


Cash accounts –

- Touch **Cash accounts** to open data input form for bank accounts. Most such input forms can be scrolled up or down to the item you want to input or modify.
- Touch the data box of **Money Market Fund**. This will bring up a numeric keypad for making your input
- Touch enter **50000** followed by the Enter key as designated by the operating system of your device.
- Similarly enter **1000** for **Cash on Hand**.
- Touch **Ok** to exit this input form.

 Notice that the financial summary screen above is dynamically updated as you make or change an input item. Initially the app starts with showing the 1st and 2nd year of your plan. These columns can be changed to suit your planning needs.

Retirement account –

- Touch **Retirement acts** on the main menu to open data input form for retirement accounts. The second input category is the place you need to enter Noah's retirement account information.
- Touch the data box of **Emp Ret Plan Val-N** (The **N** in this case is the first initial of **Noah** to distinguish between husband and wife accounts).
- Enter **28000** followed by the Enter key.
- Similarly enter **4** for **Wages Contrib %-N** and **Employer Match %-N** each to input annual contribution of 4% of wages to the account and the contribution matched by the employer.
- Touch **Ok** to exit the retirement input form.

 Each time you exit an input form the sum of values entered in this category are refreshed along with the computation of the financial profile summary above.

Assets –

- Touch **Other assets** on the main menu to open data input form for personal and other assets.
- Enter **300000** in the **Primary Home** input box.
- Scroll down to personal assets and enter **200000** in **Personal Assets 1**.
- Touch **Ok** to exit the assets input form.

Education Expenses –

- Each item of data we have entered thus far was of recurring nature throughout the planning horizon, i.e. it was applicable in each year of this plan. The education expense input we need to make is applicable only in select years. Such non-recurring data input can be made under Advanced items.
- Touch **Advanced** on the main menu to open Advanced Information menu.
- Touch **Expanded Data Input** followed by **Expenses** and **Education Expense**. In this section you can enter amounts applicable to specific years. For each amount you specify the applicable year.
- Touch **1st Expense Year**. This takes you to an input panel which prompts you to enter the year of expense.
- Touch the white input box and enter **2019** followed by Enter (or Done) and Ok. This will bring you back to the Education Expense menu.
- Touch **Amount 1** and enter **30000** the same way as last input for the year 2019.
- Similarly enter the **30000** amount in 2nd, 3rd and 4th year for 2020, 2021 and 2022.

| Financial Profile | | |
|---------------------|----------------|----------------|
| | 2014 | 2015 |
| Gross income | 169,000 | 177,450 |
| Income taxes | 44,982 | 47,698 |
| Net income | 124,018 | 129,552 |
| Cash inflow | 169,000 | 177,450 |
| Cash outflow | 123,342 | 129,426 |
| Net cashflow | 45,658 | 48,024 |
| Liquid assets | 131,378 | 186,458 |
| Total assets | 631,378 | 686,458 |
| Net worth | 631,378 | 686,458 |

| Education Expenses (1 of 2) | |
|-----------------------------|----------|
| Year 2019 | 30000 |
| Year 2020 | 30000 |
| Year 2021 | 30000 |
| Year 2022 | 30000 |
| 5th Expense Year | Amount 5 |

Back Data Reports **Advanced** Next 5

Growth Factors –

- You can enter growth factors associated with different input categories. All items entered in that category will grow at the specified rate (there are advanced ways available to be able to individually grow specific items that are not covered here). You have already entered the growth factors associated with income and expenses. Let's now enter the remaining growth factors.
- Touch **Advanced** on the above menu (or any other menu with Advanced tab in the navigation options at the bottom).
- Touch **Growth Projections** followed by **Projection Defaults**.
- Touch **Bank Interest Rates** to enter **2** for 2%.
- Touch **Retirement Plans** to enter **3** for 3%.

This completes the initial data input of this plan. Touch Data to return to main menu or other options of the navigation tabs to explore the app further.

| Financial Profile | | |
|---------------------|----------------|----------------|
| | 2014 | 2015 |
| Gross income | 170,457 | 179,872 |
| Income taxes | 45,346 | 48,530 |
| Net income | 125,111 | 131,342 |
| Cash inflow | 169,000 | 177,450 |
| Cash expense | 123,706 | 130,058 |
| Net cashflow | 45,294 | 47,392 |
| Liquid assets | 133,307 | 191,229 |
| Total assets | 633,307 | 691,229 |
| Net worth | 633,307 | 691,229 |

| | | |
|-----------------|---------------------|-------------|
| Cash accounts | Stocks & Bonds | Income |
| 51000 | | 169000 |
| Retirement acts | Bus Inv RealEst | Expenses |
| 28000 | | 75000 |
| Insurance | Other assets | Liabilities |
| | 500000 | |
| Options | Advanced Married | Reports |

This financial profile is now ready and reflects all our data input. You can display it from several perspectives in terms of financial statements and analysis. Touch **Reports** and start exploring these statements to get a feel for how the items entered above are accounted for.

| Financial Profile | | |
|---------------------|----------------|----------------|
| | 2014 | 2015 |
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| Reports | |
|-------------------------|--|
| Financial Profile | |
| Retirement Analysis | |
| Disability Analysis | |
| Survivor Needs Analysis | |
| Input Data Report | |

| | | | | |
|------|---------|------|----------|-------|
| Back | Options | Data | Advanced | Print |
|------|---------|------|----------|-------|

At the completion of data you should give it a quick review before starting to analyze the reports. The Input Data Report provides you with a formatted report for each category of data entered thus far.

The data you entered above is transformed into a year-by-year compilation from the first planning year to the last year of the older spouse. This compilation is available in the characteristics of-

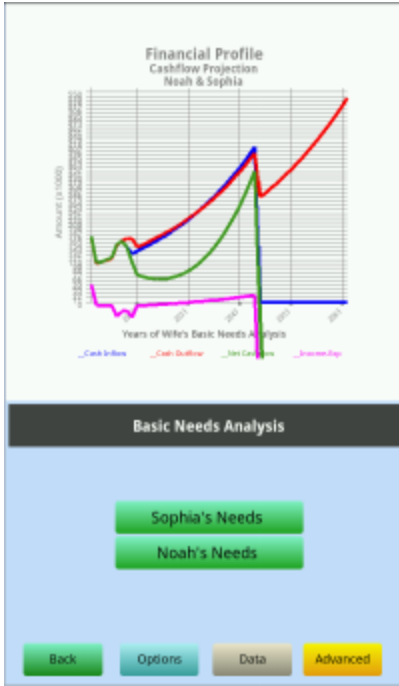
- **Income Statement**
- **Balance Sheet**
- **Cashflow Statement**
- **Supporting Schedule**

These statements can be scrolled and printed for specified years. An overview of year statement is also available in graphic presentation. These statements can also be displayed and printed for the current year or any other single year of your choice. The single year reports are also available in pie chart presentation.

The data you entered above was used by the app to prepare a normal financial profile. It can now prepare and analyze the normal profile under different scenarios involving either spouse. The scenarios are available with all detailed data that would apply in respective situation. Touch a tab to see any on the following scenarios-

- **Financial Profile** – as per normal data entered.
- **Retirement Analysis** – shows financial profile from the year of first spouse's retirement through the life of the longer lasting spouse.
- **Disability Analysis** – transforms financial profile when either spouse is assumed a permanent disability.
- **Survivor Analysis** – transforms the normal profile into survivor's needs analysis with assumption of the death of either spouse in any given year

All of these scenarios are available with year-by-year details of applicable items in the format of financial statements listed above, The alternate scenarios (all except normal profile) also include an additional report containing cumulative information and useful analysis of the respective scenario. This report summarizes the financial impact of the scenario and highlights if lifetime financial needs exceed the capital resources available. In such circumstances it provides you with possible corrective suggestions.



Survivor Cashflow Statement

Sophia's Survivor Profile

| Noah & Sophia | 2017 | 2018 | 2019 | 2020 | 2021 |
|---------------------------|---------|---------|---------|---------|---------|
| | 3735 | 3837 | 3938 | 4038 | 4148 |
| BEGINNING OF YEAR | | | | | |
| Cash On Hand | 981 | 981 | 1,039 | 415 | -26,454 |
| SOURCES OF CASH | | | | | |
| Cash Income | | | | | |
| Partnership Inc-S | 98,398 | 103,374 | 108,463 | 113,506 | 118,603 |
| Retirement Plans | | | | | |
| Emp. Ret. Plan-401 | | | 13,902 | 28,486 | |
| Sale of Assets | | | | | |
| Cash Withdrawal | 15,456 | 15,663 | 33,834 | | |
| Total Cash Inflow | 113,884 | 118,921 | 137,839 | 146,996 | 118,603 |
| Cash Available | 114,725 | 119,912 | 138,876 | 146,811 | 98,199 |
| USES OF CASH | | | | | |
| Living Expenses | | | | | |
| Misc. Living Exp. | 84,384 | 87,738 | 91,207 | 94,896 | 98,891 |
| Total Income Tax | | | | | |
| Total Income Tax | 29,570 | 31,135 | 37,216 | 42,379 | 37,230 |
| Other Expenditure | | | | | |
| Education Exp. | | | 36,000 | 36,000 | 36,000 |
| Total Cash Outflow | 113,734 | 118,873 | 138,463 | 167,275 | 165,941 |
| END OF YEAR | | | | | |
| Cash Balance | 981 | 1,039 | 415 | -26,454 | -72,802 |

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Print

Graph

Capital Needs Analysis

Sophia's Survivor Profile

Noah & Sophia 2015

Sophia 33
Survivor 1st year 2015
Projected to age 83

Lifetime Funding Needs

| | | |
|--------------------|-------------------|------------------|
| Living Expenses | 11,906,652 | In 50 years |
| Education Expenses | 120,000 | |
| Income Taxes | 1,906,321 | |
| | <u>13,932,973</u> | Up to year 2064 |
| Present Value | 7,627,608 | Discounted at 2% |

Projected Income

| | | |
|-------------------|-----------|------------------|
| Personal Earnings | 6,720,406 | In 2015 onwards |
| Present Value | 4,457,931 | Discounted at 2% |

Capital Available in 2015

| | | |
|---------------------|----------------|------------------|
| Cash & Savings | 88,427 | Growing 2% a yr |
| Retirement Accounts | 36,626 | Growing 3% a yr |
| | <u>125,053</u> | |
| Present Value | 120,197 | Discounted at 2% |

PV of Income & Capital 4,457,931

These Resources are **Insufficient**

Back Print Graph

The suggested amounts are mathematically derived through complex algorithms and require a rationality check. The corrective suggestion made in different scenarios include-

- **Increasing Earnings**- Amount of additional annual earning needed to overcome cash shortage
- **Expense Reduction** - Amount and percentage of the reduction needed of annual expenses to make up for the shortfall
- **Retirement deferment** – Number of years to postpone the retirement in order to balance the needs and availability of capital
- **Life Insurance** – Amount of additional life insurances needed to make up for capital shortage
- **Disability Insurance** – Amount of disability insurance needed to replace necessary part of the lost income needed to take care of expenses

This app provides you with a quick and easy way to analyze the bottom-line impact of changing one or more piece of data. This what-if capability could save you hours or days of analysis when using other means and can potentially help you get on the a better financial track. You can easily do the what-if manually and, if you wish, an automated what-if analysis option is also available as a premium item.

Note that on the top right of your screen is a golden question mark (?) to provide you with help on demand. A full complement of help options is available on all screens and you can return to your current screen by touching one of the options available in the help menu.

NOTES

Income taxes – In the above plan we assumed the applicability of US federal income taxes.

This is the default assumption in this app. However if the taxpayer is not subject to US taxes you can build a simple templates for other National and Regional income taxes. Similarly you can build State and City income tax templates for US taxpayers. For income tax templates touch **Advanced** and **Income Tax**.

Expense during retirement – The above scenario can be refined for change in living expenses during retirement years. You can customize each expense items and its value during the retirement years or simply indicate the expenses to be reduced by a percentage point at retirement.

For making adjustments to retirement data touch **Advanced, Expanded Data Input, Retirement Data** followed by the category that suits your need.

Non-recurring items – The income and expense information we considered above mostly applied uniformly throughout the planning horizon, i.e. it is annually recurring. The main menu screen is meant to input such data in your plan. Non-recurring items, any item(s) that are applied in specific years only, can be entered using the Expanded Data Input section.

To get to the input for Non-recurring items touch **Advanced, Expanded Data Input** following by the desired category.

Displayed year – The app is set by default to show the 1st and 2nd year of the plan on the main result screen. You can change this default to display any years in the planning horizon.

To change the displayed years touch the year on the top or touch **Advanced, Customize Results** following by **Result Display** or any other category you need to customize.

Life expectancy – The life span of an individual is automatically determined based on the current age and the mortality tables published by the US Treasury Department. This age factor can be overridden.

To override the maximum years in the lifespan touch **Advanced, Personal Data** following by the age entry in the **Life expectancy** tab.