Social Benefits Software Tool:
Software User Guide

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About This Manual

This Social Benefits Software Tool V1 edition of the Software User Guide describes the Social Benefits Software Tool. It is a general purpose document, which provides an understanding of the software user interface.

Structure of the ‘Software User Guide’

The aim of the Software User Guide is to provide information for using the Social Benefits Software Tool. It covers installing, running and using the software, describes the user interface, and details many of the tasks related to working in the Social Benefits Software Tool environment. It is a general-purpose document for all users.

The information in the Software User Guide is structured in several sections:

1. About the Social Benefits Software Tool
2. Installing the Social Benefits Software Tool
3. Data Requirements of the Social Benefits Software Tool
4. Running the Social Benefits Software Tool
5. Step 1 - Working with the Social Benefits Main window
6. Step 2 - Defining the Goal and Objective hierarchy
7. Step 3 - Defining the Objective Weights
8. Step 4 - Defining the Investment Alternatives
9. Step 5 - Defining the Investment Alternative’s relative importance
10. Step 6 - Examining the results
11. Step 7 - Outputting Results

Conventions Used in this Manual

The following symbols are used throughout this manual. The following legend describes the meaning of each symbol:

- **Caution**: the accompanying text warns of the consequences of not following the recommended course of action.
- **Tip**: the accompanying text contains details that may help your understanding of the software, or may describe best practice.
- **Trouble-shooting**: the accompanying text is intended to assist you if you encounter a problem whilst using the respective part of the software.

Customer contact

Should you have any difficulties with the information provided in this document please report details of the problem by E-mail, or an annotated copy of the manual page by fax to the number provided below.

Comments on the Software User Guide should be sent to the following address:
Change details

This is the first formal edition (Version 1.1) of the Social Benefits Software Tool documentation.

Related documentation

ORN22: The Inclusion of Social Benefits in Road Investment Appraisal

General reference information

Further details on Social Benefits Software Tool may be obtained from the following:

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The Social Benefits Software Tool together with this User guide and associated documentation can be downloaded from the Transport Links website www.transport-links.org under Research – KaR projects – Theme T3 – R8123

Copyright statement

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1 About the Social Benefits Software Tool

The Social Benefits Software Tool is a software application that is used to appraise the benefit of road investment alternatives using the Analytical Hierarchy Process (AHP). AHP is based on "pairwise comparisons of investment alternatives for each of the social factors to obtain the ratings or scores". The software provides facilities for storing a goal and objective hierarchy, the associated relative weights, the investment alternatives and their attribute indices, and the calculation of the scores for the purposes of ranking.

The aims and objectives of the tool are:

- To provide a comprehensive analytical framework for including social concerns in road transport appraisal
- To combine both quantitative and qualitative social benefits (and costs) from road investments into a rational system for appraisal
- To provide a mechanism for assessing network level needs and prioritising road investments under budget constraints
- To be able to use the results within globally accepted models, specifically HDM-4
- To become a standard tool for practitioners in rural (and urban) road transport planning
- To be powerful and flexible enough to be used by:
  - local governments and communities
  - road managers
  - national and regional decision-makers
  - donor agencies
2 Installing the Social Benefits Software Tool

This section describes how to install the Social Benefits Software Tool on your PC. There are a number of scenarios in which you may want to install HDM-4 software:

- Installing Social Benefits Software Tool for the first time
- Installing an upgrade (installing a new version over an existing one)
- Installing an update (installing a bug fix for an existing version)

You may have obtained the software on CD-ROM or via Internet download/Email. The following sections describe the various installation scenarios, and cover CD and Internet use.

The recommended minimum platform requirements for running the Social Benefits Software Tool are as follows:

- Pentium P4 processor (or equivalent)
- 64MB of RAM
- 10MB of hard disk space
- Windows 95/98/NT 4.0/2000/XP

To run the Social Benefits Software Tool in collaboration with HDM-4 you will additionally need:

- HDM-4 Version 2* Full Licence
- HDM-4 Version 2 software installed

*Due to be released later in the year

2.1 Installing Social Benefits Software Tool for the first time

The method of installation will differ slightly according to whether you have obtained the software on CD-ROM or via Internet download, for instance, from www.transport-links.org. If you have the Social Benefits Software Tool CD-ROM, do the following: Insert the Social Benefits Software Tool CD in your CD-ROM drive. Microsoft Windows automatically scans the CD and the installation programme begins.

Alternatively, if you downloaded the installation program from the Internet, do the following: Select the Run option from the Windows Start menu. Specify the path of the saved Social Benefits Software Tool installation program. Click OK.

Now do the following:

1. In the first window read the licence agreement and select the I Accept the Agreement option button and click Next to proceed with the installation.

2. To accept the default destination location, click Next. To change the destination location click on the Browse button and select the desired directory. Click Next to continue.
3. Click **Next** to accept the default folder name and begin installing the Social Benefits Software Tool program files on your PC.

Please note that the installation program may need to restart Windows in order to register the various user interface controls used by the Social Benefits Software Tool. If you are asked whether you want to restart Windows now, answer Yes. When the installation is complete, you will notice that the Social Benefits Software Tool program group has been added to the Windows Start menu. The program group contains the Social Benefits Software Tool application, on-line help and documentation, and the README.TXT file that includes information on late-breaking changes, and other useful details.

### 2.2 Installing a Social Benefits Software Tool update

Social Benefits Software Tool updates will be issued from time-to-time in response to bug reports. In most cases these will be distributed via the Internet. Having downloaded an update installation program, do the following:

1. Select the **Run** option from the Windows Start menu. Specify the location of the Social Benefits Software Tool update installation program. Click **OK**.

2. Follow the onscreen instructions to install the update.

### 2.3 Installing a Social Benefits Software Tool upgrade

Social Benefit Tool upgrades may be issued if new functionality is added to the software.

The method of installation will differ slightly according to whether you have obtained the software on CD-ROM or via Internet download. If you have the Social Benefits Software Tool CD-ROM, do the following: Insert the CD in your CD-ROM drive. Microsoft Windows automatically scans the CD and displays the installation begins.

Alternatively, if you downloaded the installation program from the Internet, do the following: Select the **Run** option from the Windows Start menu. Specify the path of the downloaded Social Benefits Software Tool installation program. Click **OK**.

Now do the following:

1. In the first window read the licence agreement and select the **I Accept the Agreement** option button and click **Next** to proceed with the installation.

2. The installation program should automatically detect the folder in which the existing version of the Social Benefits Software Tool is stored. If not, you will be prompted to specify the folder.

3. Click **Next** to begin installing the Social Benefits Software Tool upgrade on your PC.
3 Social Benefit Tool’s Data Requirements

To perform an evaluation the user is required to have certain data available to input into the Social Benefits Software Tool. The data that is required is as follows:

- A goal and hierarchy of objectives

  The objectives must be defined in a hierarchical fashion using a deductive approach. The starting point is a general but imprecise objective statement (the main goal), which is refined into more precise sub- and sub-sub objectives.

  An important part of the process is the identification of the objectives relevant to the problem, which should be related to the investment alternatives. An objective may be specified from several viewpoints; for example social, economic, environmental and political. Typical social impacts are; Social change, Health and nutrition, Education, Migration, Perceived Quality of life [source: US Agency for International Development, 1992].

  Identification of the objectives depends upon the problem being analysed and is beyond the scope of this document.

- The relative importance of the objectives in achieving the goal

  It is necessary to define the relative importance (or weight) of the different objectives defined in order to select a particular set of investment alternatives.

  The way in which the relative importance of objectives is obtained depends upon the scope of the problem being analysed and is beyond the scope of this document.

- A list of investment alternatives, typically road sections, that can be

  o Defined externally and input manually

  o Imported from road investment software (initially only HDM-4 Version 2 supported)

  An investment alternative is one of a set of mutually exclusive works alternatives specified as options to be analysed for a road section and are uniquely defined by a description (section name, section ID, alternative name). There are a number of optional fields that can be defined. These optional fields are not used for the purposes of calculating the scores of the investment alternatives, but can be used to aid reporting.

  Any number of investment alternatives may be specified. However, it should be noted that when the number of objectives and investment alternatives is large, a large number of pair-wise comparisons and attribute indices have to be defined, which reduces its practicality.

- The attribute indices for all investment alternatives/objective pairings.

  The attribute indices are a measure of performance, and they measure investment alternative’s achievement in satisfying the objective directly or indirectly.
The Social Benefits Software Tool uses constructed scales *developed following field studies* suitable for typical problems being analysed. This standardisation aims to bring the measurements of investment alternatives to a common scale within this problem domain. This makes the understanding of the alternatives’ performance on each objective easier.

### 4 Running the Social Benefits Software Tool

To run the Social Benefits Software Tool:

1. Click the Windows Start menu.
2. Select the Social Benefits Software Tool application item from the Social Benefits Software Tool program group.
3. Select to **create a new evaluation**, or **open an existing evaluation**, described in more detail in the next section.

To help you proceed with the tasks required to perform an evaluation the left hand panel shows the numbered sequence of steps that must be performed.

The general procedure for performing an evaluation is:

- Step 1: Select/Create Evaluation
- Step 2: Define goal and objectives
- Step 3: Define objective weights
- Step 4: Define/import investment alternatives
- Step 5: Define alternative indices
- Step 6: Calculate alternative scores and View results
- Step 7: Export/Print results
The buttons are provided to guide the user through the evaluation process. If you are familiar with the process you can reduce the size of this information window to allow more screen space to the other data views.

Make it easier to start-up the Social Benefits Software Tool by adding a shortcut to your Windows desktop.

5 Step 1 – Creating/Opening a Social Benefits Evaluation

The Welcome screen is designed to enable you to quickly open a previously created evaluation, or create a new one.

5.1 Create a new Social Benefits Evaluation

This section describes how to create a new Social benefits evaluation.

1. Click on **Step 1: Select/Create Evaluation** to display the Social Benefits Software Tool’s Welcome screen.

2. Select **Create a new evaluation**

3. Enter a title for the Social Benefits evaluation

4. Click **OK** to create the new Social Benefits evaluation

5. The evaluation with the entered title will be created and you will be taken to Step 2 of the process.

   The title that you supply here will also be displayed as the goal of the hierarchy of objectives.

5.2 Opening an Existing Social Benefits Evaluation

This section describes how to open an existing Social Benefits evaluation.

1. Click on **Step 1: Select/Create Evaluation** to display the Social Benefits Software Tool’s Welcome screen.
2. Select **Open an existing evaluation**.

3. Do one of the following:
   - Click **Recent** to select from evaluations used most recently
   - Click **Select** to browse for an evaluation stored on the PC

4. Click **OK**
   The selected evaluation will be opened and you will be taken to Step 2 of the process.

   Clicking on **Cancel** returns the user to the currently open Social Benefits evaluation.

The Social Benefits Software Tool installation includes some example evaluations. The examples are located in a directory called “Examples” which is to be found in the Social Benefits Software Tool’s installation directory (typically “c:/Program Files/Social Benefit Tool”)

Step 2 - Defining the Goal and Objective Hierarchy

6.1 Key Concepts

The objectives must be defined in a hierarchical fashion using a deductive approach. The starting point is a general but imprecise objective statement (the main goal), which is refined into more precise sub- and sub-sub objectives.

An important part of the process is the identification of the objectives relevant to the problem, which should be related to the investment alternatives. An objective may be specified from several viewpoints; for example social, economic, environmental and political. Typical social impacts are: Social change, Health and nutrition, Education, Migration, Perceived Quality of life [source: US Agency for International Development, 1992].

Identification of the objectives depends upon the problem being analysed and is beyond the scope of this document.

The hierarchy consists of a main goal at the root of the tree, and a number of objectives and sub-objectives. The number of levels in the tree is at the discretion of the user and is not limited by the software. An example tree is shown below so as to introduce some terminology used throughout the user guide.

The main goal, or root of the tree, is labelled Increase traffic volume.

The main goal has three first level objectives (1. Social Benefits, 2. Environmental Benefits, and 3. Economic Benefits).
A first level objective is said to be a child of the main goal, and the main goal is said to be the parent of first level objectives. The first level objectives are said to be siblings.


Each of the first level objectives can have second level objectives, and in general nth level objective, can have n+1th level child objectives if required.

Each objective within the hierarchy can also be referred to as a node.

An objective that does not have any children is said to be a leaf node or an indicator. In this example there are 14 leaf nodes or indicators.

Next to each of the objectives is an icon that graphically shows the relative priority of that objective in relation to its siblings.

An objective cannot have a single child otherwise pair-wise weights cannot be defined.

6.2 Software Overview

The goal and objectives are displayed in a tree control in the main Social Benefits Software Tool window. The operations are available are accessed on the Objective Tree menu, by right clicking the mouse button while the pointer is over the objective tree control, or clicking one of the buttons on the right hand side of the tree control.

The items that are enabled on the menu, and the enabled buttons are dependent upon which node of the tree is highlighted.
When the Social Benefits evaluation is first opened the objectives are sorted alpha-
umerically.

The menu will not be enabled unless the objective tree view has the input focus.

6.3 Editing the Main Goal

This section describes how to edit the main goal.

1. Highlight the main goal in the objective tree.

2. Do one of the following:
   - Select **Edit Node** from the **Objective Tree** menu
   - Click on the right mouse button with the mouse pointer over the main goal.
   - Click **Edit node** button

   The title of main goal becomes editable in the tree control.

3. Enter the new title of the main goal

4. To finish editing the main goal title press **return** key or click away from the main goals edit box.

   The tree is updated with the new title, and the new title is displayed on the main title bar of the Social Benefits Software Tool.

6.4 Inserting a New Objective

This section describes how to insert a new objective into the objective tree.

1. Highlight a node where you want to insert a new objective.

2. To insert a child of the highlighted node do one of the following:
   - Select **Insert child of current node** from the **Objective Tree** menu
   - Click on the right mouse button with the mouse pointer over the highlighted node and select **Insert child of current node**.
   - Click **Insert child** button

   The Add New Objective dialog is displayed.
3. Do one of the following
   
   - Select Define New and enter a brief title for the objective. Click Add selected to add to the objective tree.
   
   If the objective is commonly used you can click on Add to Pre-defined list and its title will be retained for future selection.
   
   - Select Select from Predefined list and highlight one or more predefined objectives from the displayed list. Click Add selected to add the highlighted objectives to the tree.
   
   ! The user should ensure that the titles of the objectives are unique at each level of the objective tree to aid identification when reporting.

   The user should follow the same basic steps but select Insert sibling of current node to insert an objective at the same level as the highlighted node.

   STOP You cannot add a sibling to the main goal.

6.5 Deleting an Objective

This section describes how to delete an objective.

1. Highlight the node you want to delete.

2. To delete the highlighted node do one of the following:
   
   - Select Delete node from the Objective Tree menu
   
   - Click on the right mouse button with the mouse pointer over the highlighted node and select Delete node.
   
   - Click Delete node button
   
   You are prompted to confirm the deletion. Click Yes to delete the node, or No to cancel the delete action.
7 Step 3 - Defining the Objective Weights

7.1 Key Concepts

It is necessary to define the relative importance (or weight) of the different objectives defined in order to select a particular set of investment alternatives.

The pair-wise comparisons are defined relative to a Base Criterion that is identified on the user-interface. A numerical scale is used to indicate:

- if the base criterion is preferred over the selected objective,
- if the selected objective is preferred over the base criterion
- they are equally preferable

A value of 2-9 indicates the strength of the preference, while a value of 1 indicates they are equally preferable.

Normalised continuous real values are computed from these discrete pair-wise comparisons for the sibling objectives and are displayed as the local priority.

The objective’s priority in relation to the main goal will be affected by its local priority and the priority of its parents. This priority is called the objective’s global priority.

The current local priority is shown graphically next to each objective. Selecting Weights and Priority on the View menu can display the numerical relative weights next to the objective.

Three options are possible:

- Pair-wise comparison – denoted by “W”
- Local priority – denoted by “L”
- Global priority – denoted by “G”

The final option, Base Criterion, shows the currently selected base criterion against which the weights are defined for each branch of the objective tree in a bold font.

The objective tree and weights shown on the screen can be printed using the File – Print option.
7.2 Software Overview

The objectives weights are displayed in a tree control in the main Social Benefits Software Tool window by clicking **Step 3: Define objective weights**. The operations available are accessed on the **Objective Tree** menu, by right clicking the mouse button while the pointer is over the objective tree control, or clicking one of the buttons on the right hand side of the tree control.
7.3 Making Pair-wise Comparisons

This section describes how to define pair-wise comparisons for sibling objectives.

1. Highlight an objective.

2. To define the pair-wise comparisons for the siblings of the highlighted objective do one of the following:
   - Select **Edit node's weighting** from the **Objective Tree** menu
   - Click on the right mouse button with the mouse pointer over the highlighted node and select **Edit node's weighting**.
   - Click **Sibling weights** button

   The Tree Weights Assignment dialog is displayed

3. Select each of the objectives not identified as the **Base Criterion** in the Weights spreadsheet and do one of the following.
   - Select the required weight from the drop down list of pair-wise comparison descriptions. When you select a description the graphical display is also updated to illustrate the comparison.
Move the drag-bar to the required position on the graphical display depending on the strength of the comparison required. The closer the drag-bar is to the objective, the stronger the preference is for that objective.

- If the base criterion is preferred above the selected object move the drag-bar towards the left hand side (the more left it is moved the stronger the preference for the base criterion)
- If the selected objective is preferred above the base criterion move the drag-bar towards the right hand side (the more right it is moved the stronger the preference for the selected objective)

When you drop the drag-bar the drop-down menu is also updated to reflect the change.

4. Click **OK** to accept the changes made.

The objective tree will be redisplayed with the new relative weights defined taken into consideration.

The matrix is shown for information purposes only.

# 8 Step 4 - Defining the Investment Alternatives

## 8.1 Key Concepts

The section alternative is the basic unit of analysis in the Social Benefits Software Tool and the set of section alternatives define the investment alternatives being evaluated.

A section alternative is one of mutually exclusive works or policy alternatives specified for a road section, and are uniquely defined by a description (section name, section ID, alternative name). There are a number of other optional fields that can be defined. These optional fields are not used for the purposes of calculating the scores of the investment alternatives, but can be used to aid reporting.

The section alternatives can be:

- Defined by end user directly in the Social Benefits Software Tool when operating in stand-alone mode, or
- Calculated and imported from a road investment analysis tool. At present only HDM-4 Version 2 data format is supported.

## 8.2 Software Overview

The investment alternatives are displayed in a spreadsheet control in the main Social Benefits Software Tool window. The operations are available are accessed on the Alternatives menu, by right clicking the mouse button while the pointer is over the alternatives spreadsheet control, or by using the buttons on the below the spreadsheet.
The menu will not be enabled unless the investment alternatives view has the input focus.

Selecting Alternative Options from the View menu can customise the data displayed in the spreadsheet for each investment alternative.

8.3 Importing Investment Alternatives

This section describes how to import alternatives from a pre-defined data source.

1. Do one of the following:
   - Select **Import section alternatives** from the Alternatives menu
Click on the right mouse button with the mouse pointer over the main goal and select **Import section alternatives**.

Click **Import** button

The Import Alternatives dialog is shown

2. Select the required data source from the drop down list.

3. Click **Browse** and highlight the file from which the section alternatives should be imported. The file details will be displayed in the dialog.

4. Select the option you require
   
   - Select **Replace existing alternatives** to replace the currently define alternatives with the ones being imported
   
   - Select **Append to existing alternatives** to add the imported alternatives to those currently defined.

5. Click on **Import** to begin the process of importing the alternatives.

When complete the imported alternatives will be displayed in the spreadsheet.

### 8.4 Adding Investment Alternatives Manually

This section describes how to manually add alternatives.

1. Do one of the following:
   
   - Select **Add new Section Alternative** from the **Alternatives** menu
   
   - Click on the right mouse button with the mouse pointer over the alternatives view and select **Add new Section Alternative**.
   
   - Click **Add** button

The Add/Edit Alternatives dialog is shown
2. Enter the required data into the edit boxes

The user can select from the existing data in the drop-down selection boxes (if any) or enter their own required data. The description data is used to uniquely define an investment alternative, all other data is optional and is not used in the calculation of the investment alternatives’ score.

3. Click **OK**

The investment alternative will be added to the evaluation and displayed in the spreadsheet.

### 8.5 Editing Investment Alternatives

This section describes how to edit a section alternative.

1. Highlight the section alternative that you wish to edit

2. Do one of the following
   
   - Select **Edit Section Alternative** from the **Alternatives** menu
   
   - Click on the right mouse button with the mouse pointer over the section alternative and select **Edit Section Alternative**.
   
   - Click **Edit** button

   The Add/Edit Alternatives dialog is shown
3. Edit the required data in the edit boxes

4. Click **OK**

   The investment alternative changes will be reflected in the spreadsheet display.

**8.6 Deleting Investment Alternatives**

This section describes how to delete a section alternative.

1. Highlight the section alternative that you wish to delete

2. Do one of the following

   - Select **Delete Section Alternative** from the **Alternatives** menu
   - Click on the right mouse button with the mouse pointer over the section alternative and select **Delete Section Alternative**.
   - Click **Delete** button

   You are prompted to confirm the deletion. Click **Yes** to delete the section alternative, or **No** to cancel the delete action
9  Step 5 - Defining the Investment Alternative’s Attribute Indices

9.1  Key Concepts

The relationships between the investment alternatives and the lowest level objectives or indicators are called the Attribute Indices. The attribute indices are a measure of performance, and they measure investment alternative’s achievement in satisfying the objective directly or indirectly.

The Social Benefits Software Tool uses constructed scales <developed following field studies> suitable for typical problems being analysed and is based on a 5 point measurement scale. The scale ranges from Major dissatisfaction to Major Satisfaction.

By default all new investment alternatives attribute indices are set to Indifferent for all indicator objectives.

9.2  Software Overview

The investment alternatives’ attribute indices are displayed in a spreadsheet control in the main Social Benefits Software Tool window. The attribute indices are shown for the currently selected indicator objective.

If you have not selected an indicator objective the attribute index column will not be shown.

9.3  Defining Investment Alternatives Indices

This section describes how to define the performance indices for the section alternatives.
1. In the objective tree select the indicator objective you wish to define the performance indices for.

2. For each of the section alternatives select the required performance index from the drop down list on the spreadsheet view.

10 Step 6 – Calculating the Scores and Viewing the Results

10.1 Key Concepts

When the relative weights and attribute indices have been defined the score for each section alternative can be calculated.

The scores can be considered as the Utility Index (UI) in terms of social benefits value that each investment alternative could yield in terms of the main goal defined. This is typically used for selecting projects.

10.2 Software Overview

The investment alternatives’ scores are displayed in a spreadsheet control in the main Social Benefits Software Tool window.

10.3 Viewing Results

This section describes how to view the results of the evaluation.

1. Click on the **Step 6: Calculate scores and View** button to automatically calculate the investment alternatives’ scores and display them in a spreadsheet.
10.4 Sorting the Results

This section describes how to sort the results.

1. Click **Sort** button

   The Sort dialog box will be displayed

2. Select the column(s) that you wish to sort by, and the direction of the sorting, in priority order. You want to sort of fewer columns you can select a blank option in the drop down selection box.

3. Click **OK**

   The results in the spreadsheet will be displayed using the newly defined sorting order.

10.5 Exporting the Results

The investment alternatives and the calculated scores can be exported to Excel for further analysis, or for producing custom reports and charting to the users requirements.

4. Click **Export** button
A screen will be displayed to enable the Excel file name, and its location, to be defined.

5. Enter a valid Excel filename and click **Save**
   The file will be created and the data exported.

### 10.6 Printing the Results

1. Click **Print** button
2. Select printer and click **OK**

### 11 Step 7 - Outputting Results

#### 11.1 Software Overview

All of the options to output the Social Benefits Software Tool’s data for the currently open file are available by clicking on the **Step 7: Export/Print Results** button.

The user can select to Export or Print the Objective Tree and/or the Investment Alternatives by the use of buttons on the screen.

No predefined report templates are defined; instead the user is given the option of exporting the results to a common software package to enable them to define their own custom reports depending upon their individual needs. Basic print facilities are provided by the tool directly to enable hardcopies of the data to be generated without the need for other software tools should these not be available.
11.2 Exporting Objective Tree

The objective tree and the input weights can be exported to Excel for further analysis, or for producing custom reports to the users requirements.

1. Click the **Export** button on the screen for the Objective Tree

   A screen will be displayed to enable the Excel file name, and its location, to be defined

   ![Screenshot of Export Excel dialog]

2. Enter a valid Excel filename and click **Save**

   The file will be created and the data exported.

11.3 Printing Objective Tree

1. Click **Print** button

2. Select printer and click **OK**

   The calculated weights (priorities) for the objective tree can be printed in Step 3 using the File – Print option (see section 7.1).

11.4 Exporting Investment Alternatives

The investment alternatives and the calculated scores can be exported to Excel for further analysis, or for producing custom reports and charting to the users requirements.

1. Click the **Export** button on the screen for the investment alternatives

   A screen will be displayed to enable the Excel file name, and its location, to be defined
2. Enter a valid Excel filename and click **Save**

   The file will be created and the data exported, the user is then free to further analyse or graph the data to their individual requirements, as shown in the figure below.

![Excel_export_dialog](image.jpg)

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**11.5 Printing Investment Alternatives**

1. Click **Print** button

2. Select printer and click **OK**