

AHP-OS Quick Reference

1. Session Administration

The Session Administration Menu allows you to open your AHP projects. You can also open a project by *clicking on the link of the session code in the project table*.

Session Administration Menu

Project Session Code:

- Open project summary of project with selected session code.
- Start a new project (hierarchy definition) – opens hierarchy page.
- Back to AHP main page.

2. Project Administration

The Project Administration Menu allows you to manage a selected AHP project.

Project Administration Menu

- View result (greyed, if no result available).
- Start your input (pairwise comparisons) as participant.
- Use decision hierarchy of the selected project to define a new one.
- Rename project name or edit project description.
- Edit a saved project (greyed, when project has participants' inputs).
- Delete selected participant(s) (greyed, if no participant is selected.)
Select participants in the participants table and refresh.
- Delete the whole project.
- Close the selected project. Go back to session table.

3. Decision Hierarchy

Input new text in the text field below. (See [examples](#))

```
AHP-Project: Crit-1, Crit-2, Crit-3;
Crit-1: a=.6, b=.4;
Crit-2: c, d;
Crit-3: e, f;
```

The syntax is defined as follows:

```
<hierarchy> → <branch>; [{<branch>;}]
<branch> → <node>: <leafs>, <leafs> [, <leafs>]
<leafs> → {<leaf> [= <weight>]}
```

For all <leafs> in a <branch> the sum of <weight> has to be one. A <node> of the second and any further <branch> has to be one of the <leaf> in <leafs>. Each <node> represents a decision matrix, and the corresponding priority vector's dimension is the number of <leafs>. The example shown has defined weights for the two criteria a (60%) and b (40%). For all other criteria weights are automatically set to the default value $1/n_{leaf}$.

In the Hierarchy Input menu you can define a new hierarchy and save it as new project.

Hierarchy Input Menu

Submit Hierarchy Save/Update Download (.csv) dec. comma Reset Priorities Reset All Done

- Submit Hierarchy Submit hierarchy text input
- Save/Update Save new or updated hierarchy definition to the database.
- Download (.csv) Export hierarchy as comma separated value file.
- dec. comma Export with “,” as decimal separator when checked.
- Reset Priorities Reset all priority values given within the hierarchy text input. Clears also alternative names.
- Reset all Reset hierarchy definition and all other session parameters.
- Done Go back to Session Administration.

4. Save New/Modified Projects

When you want to save a new or modified project, or rename the project name or description, the AHP Session Input Page will open. You can edit the AHP Project Name and input a Project Short Description. The project short description (max. 400 chars) will be shown to the participants/respondents.

AHP Project Name:

Vendor Selection

Project Short Description:

[Large empty text area for Project Short Description]

AHP Session Input Menu

Check Input **Go** Reset Cancel

5. Group Input (Participants)

Start project evaluation inputs as participant: Click on *Group Input* in the project administration menu, or follow the group link provided on the project administration page.

The session code is sUHYmA. Provide this session code or the following link to your participants:

```
https://bpmsg.com/academic/ahp-hiergini.php?sc=sUHYmA
```

AHP Session Input Menu

- Check your input (session code and participants' name). Red outline when required.
- Start: will show decision hierarchy with AHP buttons to click and start pairwise comparisons.
- Reset form.
- Cancel input.

6. Pairwise Comparisons

- Start pairwise comparison (red) for selected node of the hierarchy. Once the comparison is done, the button outline will be green.
- Check consistency of your pairwise comparisons.
- Submit priorities and continue evaluation.

Once all judgments are completed, they can be saved to the database.

Group Input Menu

- Submit judgment for group evaluation – red outline, when all comparisons are completed.
- View consolidated group results.
- Exit the Group input page – red outline, when judgments are saved.

7. Group Results

The group result menu allows you to analyse the results and download them as csv text file.

Group Result Menu

var

 dec. comma

- Scale selection.
- var Uncertainty evaluation and sensitivity analysis (alternatives).
- wpm Weighted product method (WPM) instead of weighted sum method.
- Refresh page – outlined red when required.
- View participants' input data.
- dec. comma Download results as csv text file.
- Use hierarchy with resulting priorities for definition of alternatives.
- Go back to project list.

8. Define Alternative Project

Click *Use Consol. Prio* in the Group Result Menu and click on *Alternatives* in the hierarchy table. Define number and names of alternatives.

Input number and names (2 - 12)

Save as new project.

Alternative Menu

Save as Project

- Save as Project

Hierarchy with consolidated priorities and defined alternatives will be saved as a new project (mode alternative evaluation).
- Reset Alternatives

Reset all defined alternative names to input new ones.
- Done

Go back to hierarchy page.

9. Results Page

On the result page following details are shown:

Project result data	Selected judgment scale, Number of judgment variation for uncertainty estimation, Weighted Product Method (WPM) if selected. - Project summary table, - Alternative table (if any), - Project participants table with checkbox for selection of individual participants.
Hierarchy with consolidated priorities	"All" or selected participants from participant's table, decision hierarchy table with alternatives (if any) and consolidated weights from all or selected participants.
Consolidated global priorities or weights of alternatives	Graph with priorities and uncertainties (if selected).
Sensitivity analysis	1. Weight uncertainties overlap, 2. Robustness (for alternative evaluation).
Alternatives by Participants (alternative evaluation)	Group result of alternative weights, uncertainties and breakdown by participant.
Breakdown by nodes (Details/Hide)	Consistency Ratio CR, AHP group consensus, Table with weights and uncertainties, Consolidated decision matrix, Group result and weights for individual participants.
Global priorities (hierarchy evaluation)	Group consensus and global weights, uncertainties and breakdown by participants.