Instruction Manual DAME

Dame works for all 32-bit versions of Excel from 97 to 2013

Starting the program

Start the program by clicking "Dame" file - the one with the little red square on it.



Excel is opened automatically. A security screen appears warning you of potential security risks. Ignore that and Enable Macros:

| Microsoft Excel Security Notice | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|
| Microsoft Office has identified a potential security concern. | | | | | | | | | |
| Warning: It is not possible to determine that this content came from a trustworthy source. You should leave this content disabled unless the content provides critical functionality and you trust its source. | | | | | | | | | |
| File Path: C:\Users\Rado\Desktop\DAME3\DAME3\DAME3\DAME.xla | | | | | | | | | |
| Macros have been disabled. Macros might contain viruses or other security hazards. Do not enable this content unless you trust the source of this file. | | | | | | | | | |
| More information | | | | | | | | | |
| Enable Macros | | | | | | | | | |

Add-ins item with DAME drop down menu will newly appear on the main menu:

| File | Home | Insert | Page Layout | Formulas | Data | Review | View | Add-Ins |
|----------|-------|--------|-------------|----------|------|--------|------|---------|
| DAN | 1E - | | | | | | | |
| | | | | | | | | |
| Menu Com | mands | | | | | | | |

Generating a new decision-making problem

(You have to have a new clean workbook open before working with Dame. If you only have a shadow screen, you will get Run-time error 1004.)

From the DAME drop down menu select English. Then select 'Novy problem' (New Problem). The following screen appears:

| New problem | | | × |
|--|---|--|-----------|
| Basic settings Number of scenarios Number of criteria Number of variants | | | |
| Scenarios comparison | Cri | teria comparison | |
| ● Pairwise C | Weights 📀 | Pairwise | C Weights |
| Criteria Evaluation of variant 1. © Pairwise 2. © Pairwise 3. © Pairwise | ts according to individ C Values max C Values max C Values max | dual criteria O Values min O Values min O Values min | |
| ОК | Cancel | | |

Now select the number of Scenarios, Criteria and Variants (Alternatives) depending on the type of a problem you are faced with.

Once you make your selection here and click OK, a set of charts are generated:

| | A | в | С | D | Ε | F | G | н | 1 | J | к | L | м | N | 0 |
|----|----------|---------|---------|---------|--------|-----------|-----------|-------------|-------|----------|-------|---------|--------|-------|-------|
| 21 | Criter | a Comp | parison | : | | | | | | | | | | | |
| 22 | Criterie | Crit 1 | Crit 2 | Crit 3 | 0.000 | Critories | wister | | | | | | | | |
| 23 | Crit 1 | 1 | - | - | | | 0.33333 | | | | | | | | |
| 24 | Crit 2 | 0 | 1 | - | | | 0.33333 | | | | | | | | |
| 25 | Crit 3 | 0 | 0 | 1 | | | 0.33333 | | | | | | | | |
| 26 | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | |
| 28 | Evalua | tion of | Yarian | ts Acco | ording | to Indiv | idual Cı | riteria: | | | | | | | |
| 29 | Grit 1 | Tar 1 | Ter 2 | Fer 3 | Ter 4 | 0.000 | Yoriontry | wight | | | | | | | |
| 30 | Yer 1 | 1 | - | - | - | | | 0.25 | 0.25 | 0.25 | | | | | |
| 31 | Tar 2 | 0 | 1 | - | - | | | 0.25 | 0.25 | 0.25 | | | | | |
| 32 | Ter 3 | 0 | 0 | 1 | - | | | 0.25 | 0.25 | 0.25 | | | | | |
| 33 | Ter 4 | 0 | 0 | 0 | | 1 | | 0.25 | 0.25 | 0.25 | | | | | |
| 34 | _ | | | | | _ | | | | | | | | | |
| 35 | Grit Z | Ter 1 | Ter 2 | Ter 3 | Ter 4 | 0.000 | | | | | | | | | |
| 36 | Ter 1 | | - | - | - | | | | | | | | | | |
| 37 | Ter Z | 0 | | - | | - | | | | | | | | | |
| 38 | Tar S | 0 | 0 | | | | | | | | | | | | |
| 39 | Tar 4 | 0 | 0 | 0 | | | | | | | | | | | |
| 40 | 0.40 | | | | | | | | | | | | | | |
| 41 | 1.775 | T47 1 | Tar 2 | Tar s | 1474 | 0.000 | | | | | | | | | |
| 46 | | | | | - | | | | | | | | | | |
| 44 | | 0 | | | - | | | | | | | | | | |
| 45 | | 0 | Ň | | | | | | | | | | | | |
| 46 | | v | Ť | Ť | | | | | | | | | | | |
| 47 | | | | | | | | | | | | | | | |
| 48 | Evalua | tion of | Yarian | ts Acco | ording | to Indiv | idual Cr | riteria: | | | | | | | |
| 49 | 24- | Waight | Bank | | | | | | | | | | | | |
| 50 | For 1 | 0.25 | ļ | | | | | | | | | | | | |
| 51 | Ter 2 | 0.25 | | | | | | | | | | | | | |
| 52 | Ter 3 | 0.25 | 1 | | | | | | | | | | | | |
| 53 | Ter 4 | 0.25 | 1 | | | | | | | | | | | | |
| 54 | - | | | | | | | | | | | | | | |
| 55 | T | 1 | | | | - | | _ | | | | | | | |
| 56 | rotal e | valuati | onotv | ariants | | | | | | | | | | | _ |
| 57 | 62. | Woight | Reak | | | | | | To | tal Eval | uatio | n of Va | riants | | - |
| 58 | Yer 1 | 0.25 | | | | | | | | | | | | | - |
| 59 | Par 2 | 0.25 | | | | | | - | | | | | | | |
| 61 | Res 4 | 0.25 | | | | | | | | | | | | | |
| 62 | | 0.60 | _ | | | | | | | | | | | | - |
| 63 | | | | | | | | 0.6 | | | | | | | - 1 |
| 64 | | | | | | | | as | | | | | | | - E |
| 65 | | | | | | | | 0.4 | | | | | | | - [|
| 66 | | | | | | | | 03 | _ | | _ | _ | | _ | - [|
| 67 | - | | | | | | | 0.2 | | | | | | | - - |
| 68 | - | | | | | | | 01 <u>-</u> | | | | | | | |
| 59 | - | | | | | | | • + • • | Ver 3 | | | Ver 3 | | Ver 4 | ¬ ⊦ . |
| 71 | | | | | | | - | | | | - | | | | - |

If make a mistake (say you wanted weights instead of pairwise comparisons) you have to generate the task again from the beginning. Settings cannot be modified once the problem has been laid out on the spreadsheet.

Pairwise comparison weights are automatically generated in the column to the right of the matrix.

| 20 | Scena | rio 1 | | | | | | | | |
|----|------------------------|--------|--------|-----|-------|------------|--|--|----------|--|
| 21 | 1 Criteria Comparison: | | | | | | | | | |
| 22 | Criteria | Crit 1 | Crit 3 | | 0.010 | Criteria w | | | | |
| 23 | Crit 1 | 1 | 1 | • | 2 | - | | | 0.387371 | |
| 24 | Crit 2 | 1 | | 1 | 3 | - | | | 0.443429 | |
| 25 | Crit 3 | 0.5 | 0.333 | 333 | , | 1 | | | 0.1692 | |
| 26 | | | | | | | | | | |

There are 3 methods to choose from when evaluating items by pairwise comparisons:

- Saaty's method
- Fuller's method and
- Geometric mean

Once selected, the method is applied to ALL pairwise calculations that follow.

Inconsistency Index (in the top right corner of the matrix) is calculated automatically and should not exceed 0.1.

The program calculates overall weights for all evaluated variants (alternatives) at the end and presents results in a bar chart.

