What's new on Club Murat CBA software?

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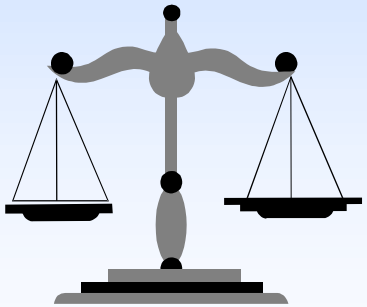
Introduction

- Several cost-benefit analysis methodologies have been developed during the last 20 years
- Frank Möller developed his methodology in the early 90's in Pilot NIMIC
- This methodology was improved later by Alex White (Australia) : Monte Software
- This has been adapted by Club Murat in a user-friendly model called ACB since 1997
- Today : ACB 4.0

CBA (Cost Benefit Analysis)

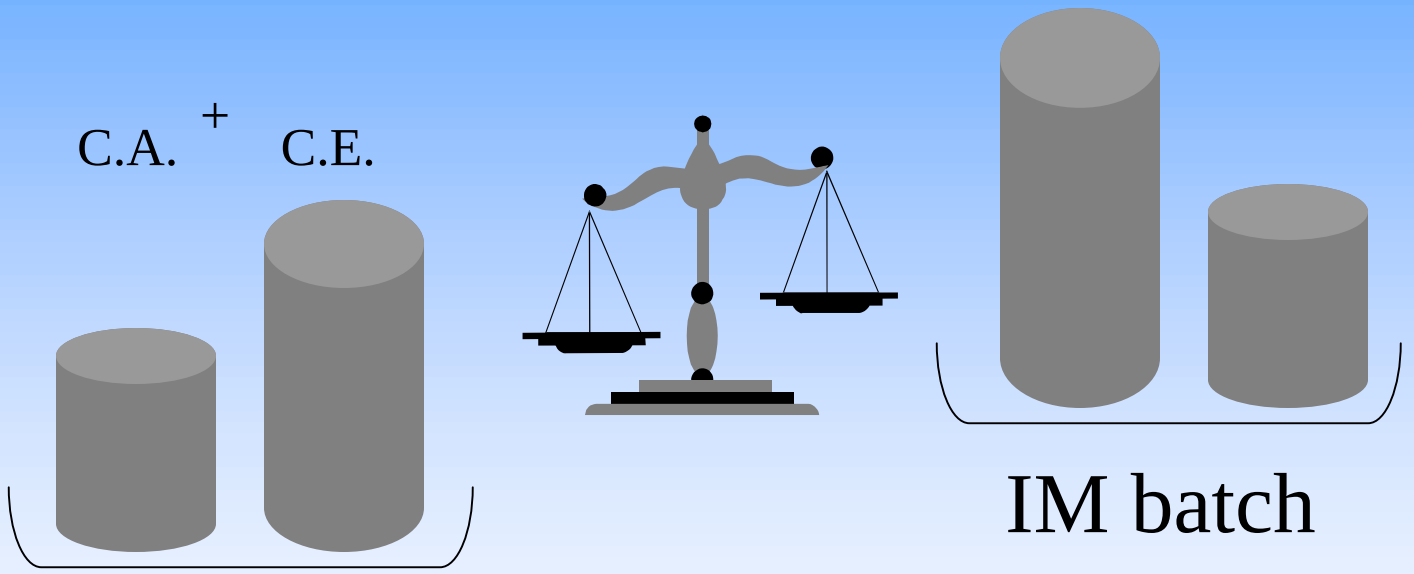
- To assess the difference of the global cost between a so-called « reference munition » and a projected munition all along its life cycle



CBA (Cost Benefit Analysis)

C.A. + C.E. = C.P.

C.P. = C.A. + C.E.



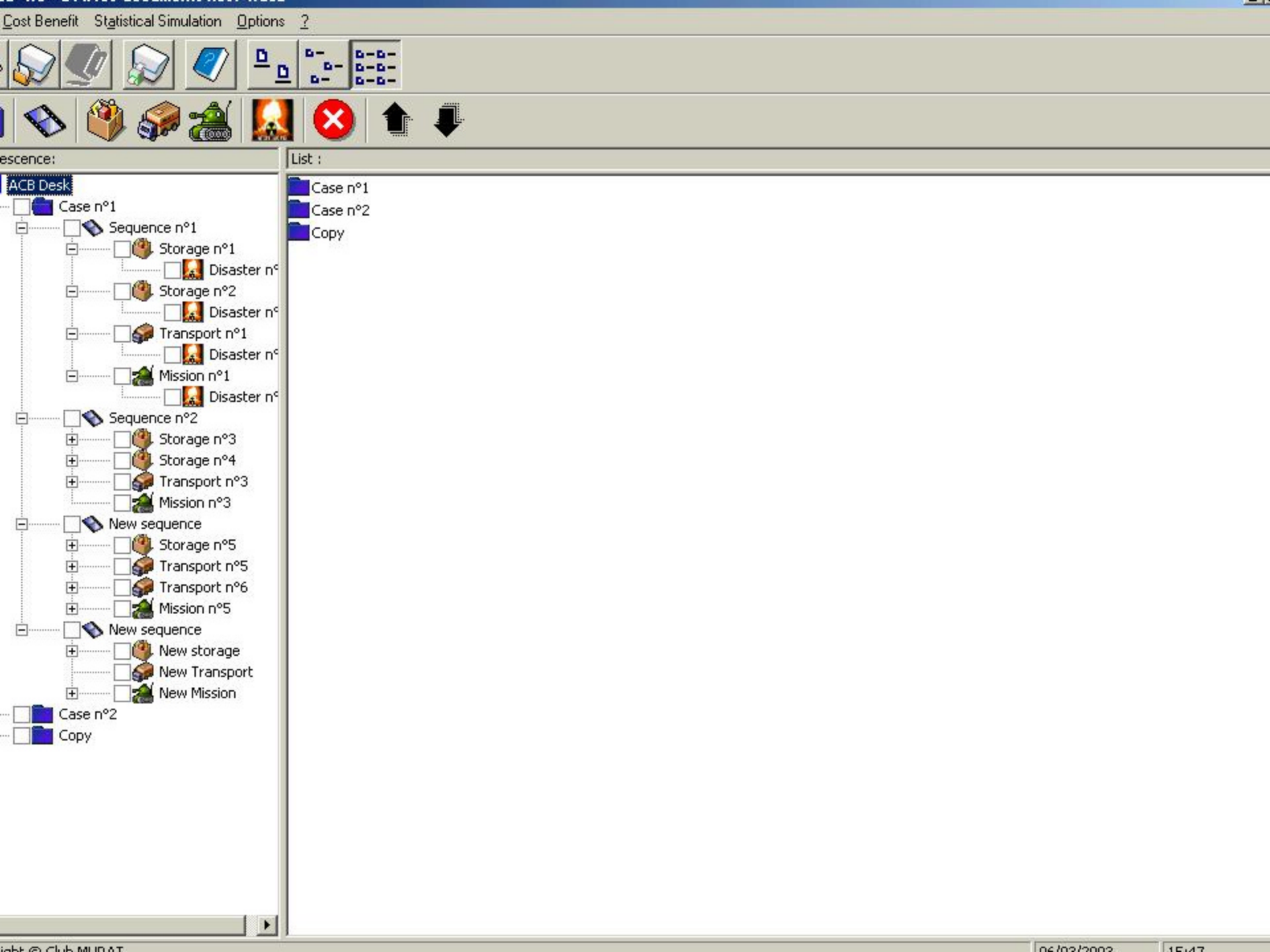
Classical batch

IM batch

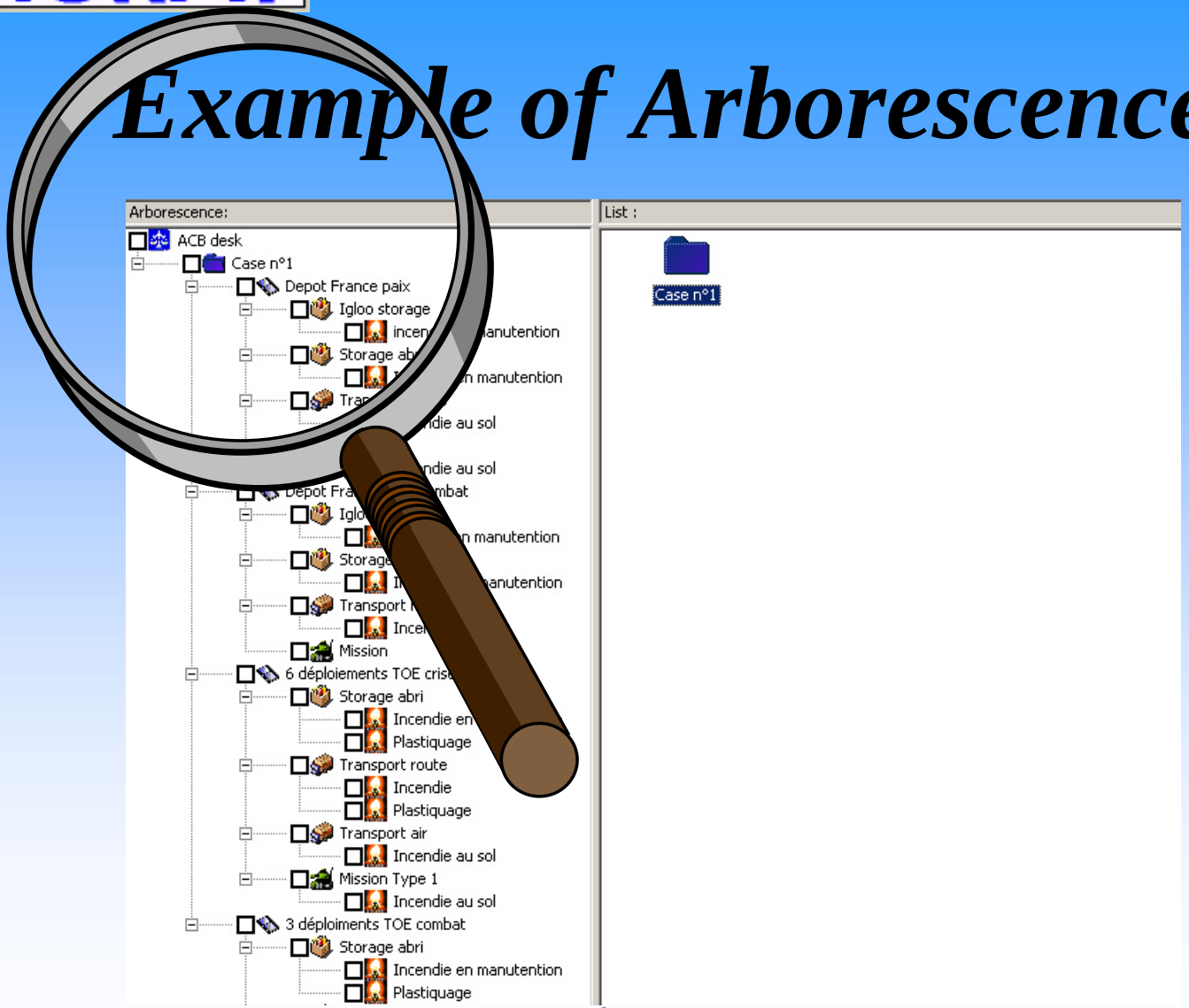
New versions of the ACB software (from V 3.0)

Life cycle is :

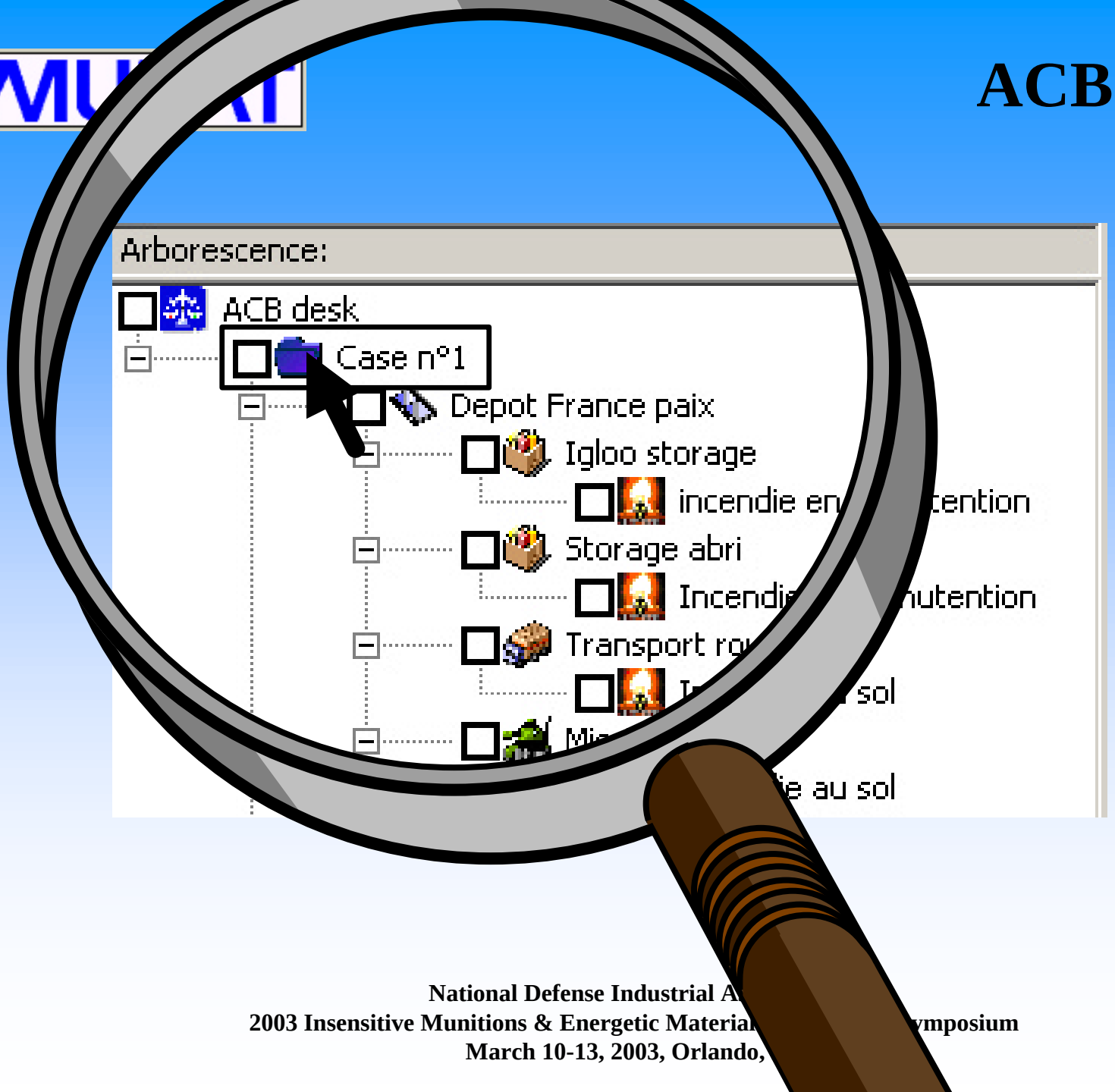
- described by an arborescence unlimited
- analysed with many types of storage, of transport and of operation as it needs


Cost Benefit
Statistical Simulation
Options
?
escence:
List :
ACB Desk
Case n°1
Sequence n°1
Storage n°1
Disaster n°
Storage n°2
Disaster n°
Transport n°1
Disaster n°
Mission n°1
Disaster n°
Sequence n°2
Storage n°3
Storage n°4
Transport n°3
Mission n°3
New sequence
Storage n°5
Transport n°5
Transport n°6
Mission n°5
New sequence
New storage
New Transport
New Mission
Case n°2
Copy
Case n°1
Case n°2
Copy

Example of Arborescence

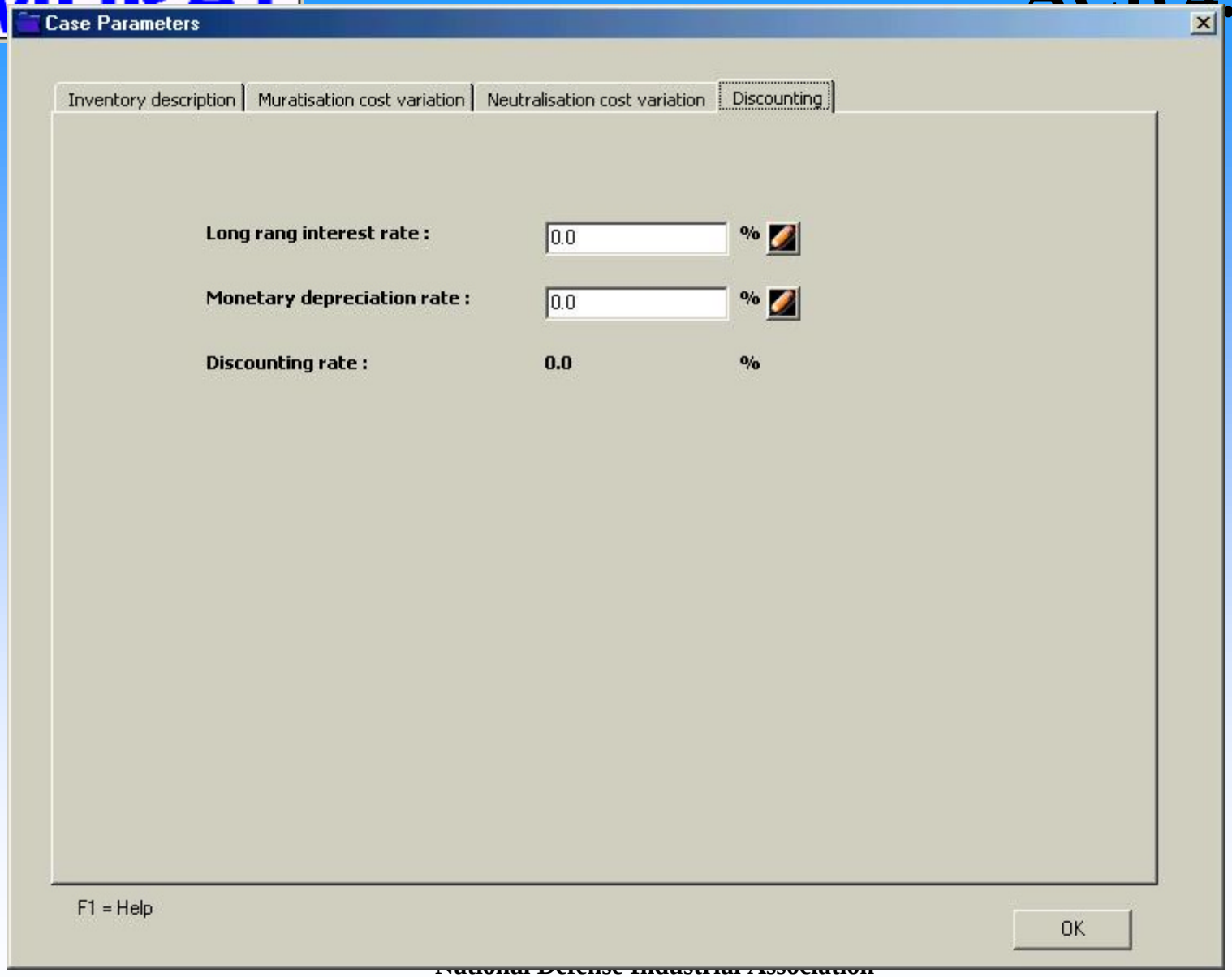


ACB 4.0

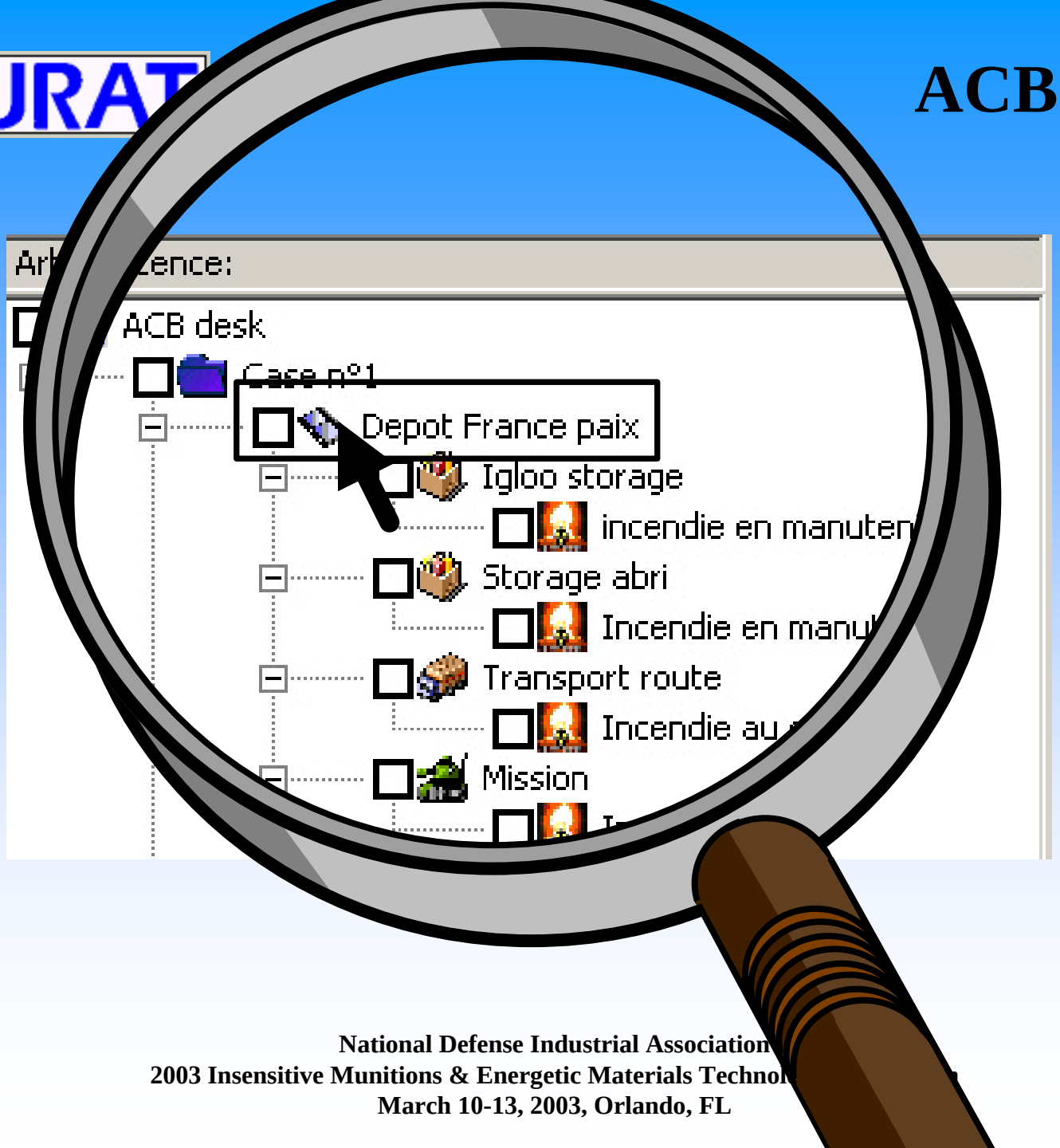

Arborescence:
ACB desk
Case n°1
Depot France paix
Igloo storage
Storage abri
Transport ro
sol
au sol

ACB 4.0

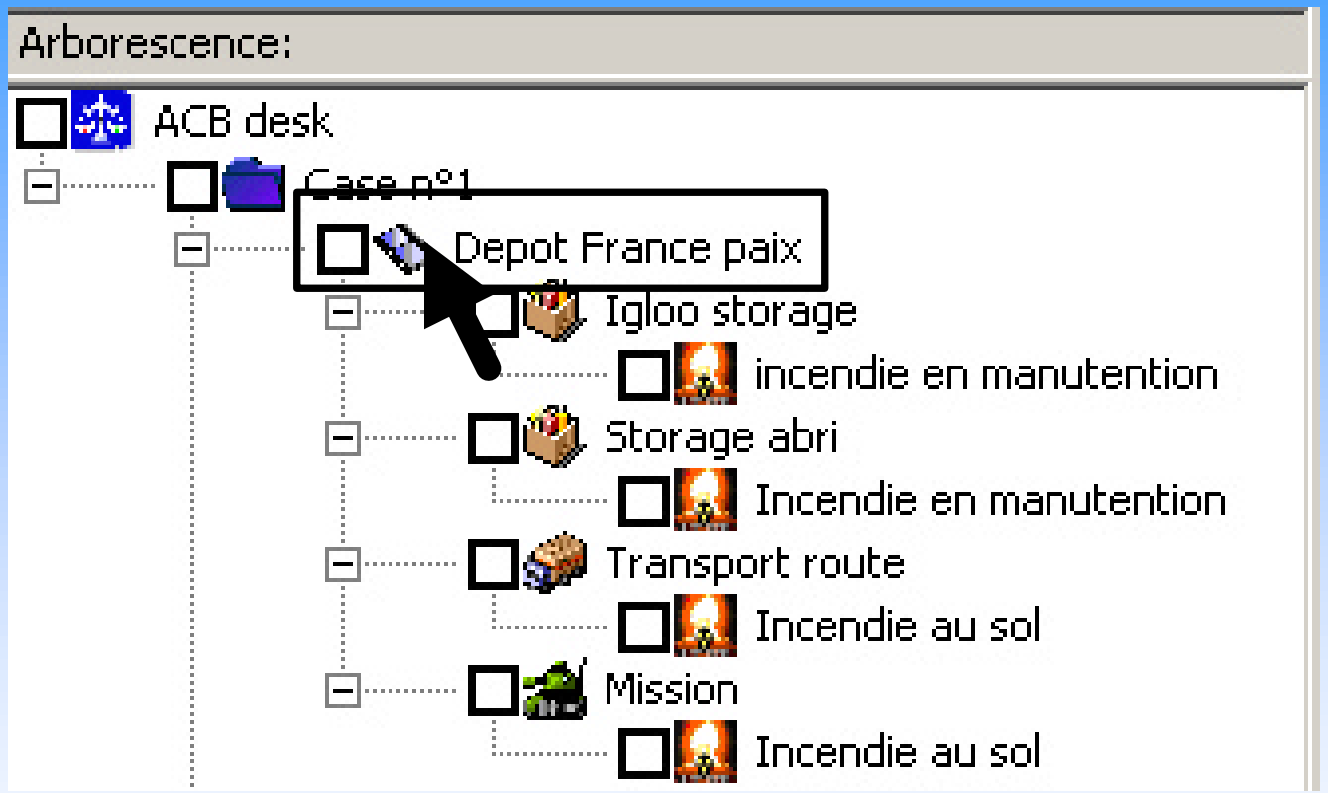
1st level of the analysis


Case Parameters
Inventory description
Muratisation cost variation
Neutralisation cost variation
Discounting
Long rang interest rate :
0.0
%
Monetary depreciation rate :
0.0
%
Discounting rate :
0.0
%
F1 = Help
OK

ACB 4.0

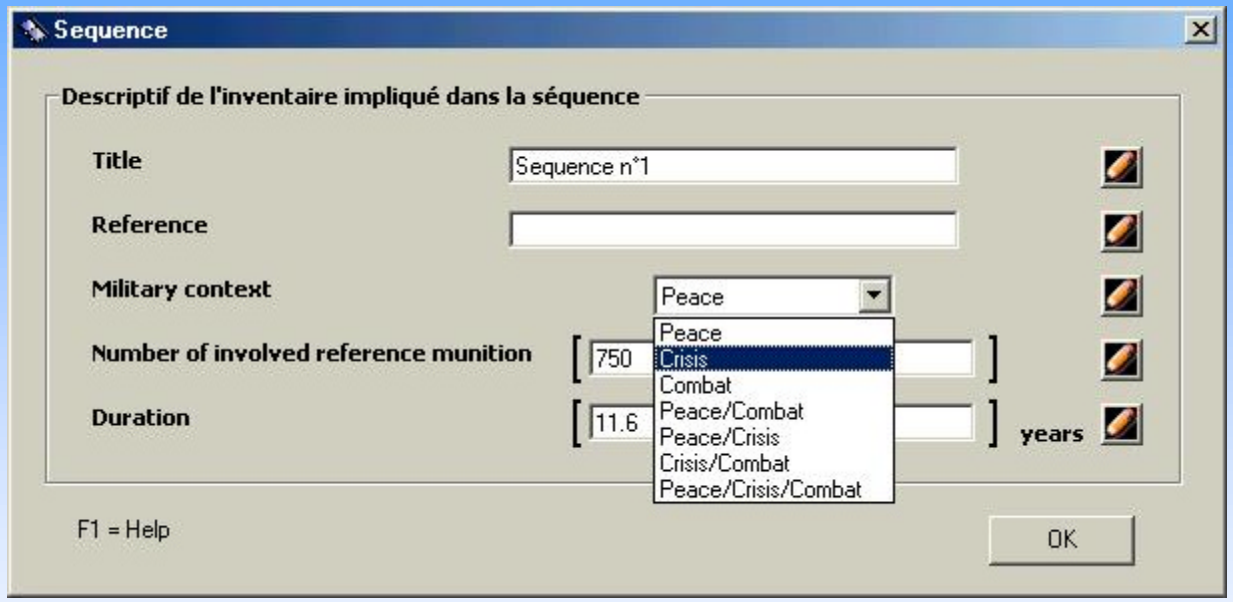

ACB desk
Case n°1
Depot France paix
Igloo storage
Storage abri
Transport route
Mission

ACB 4.0

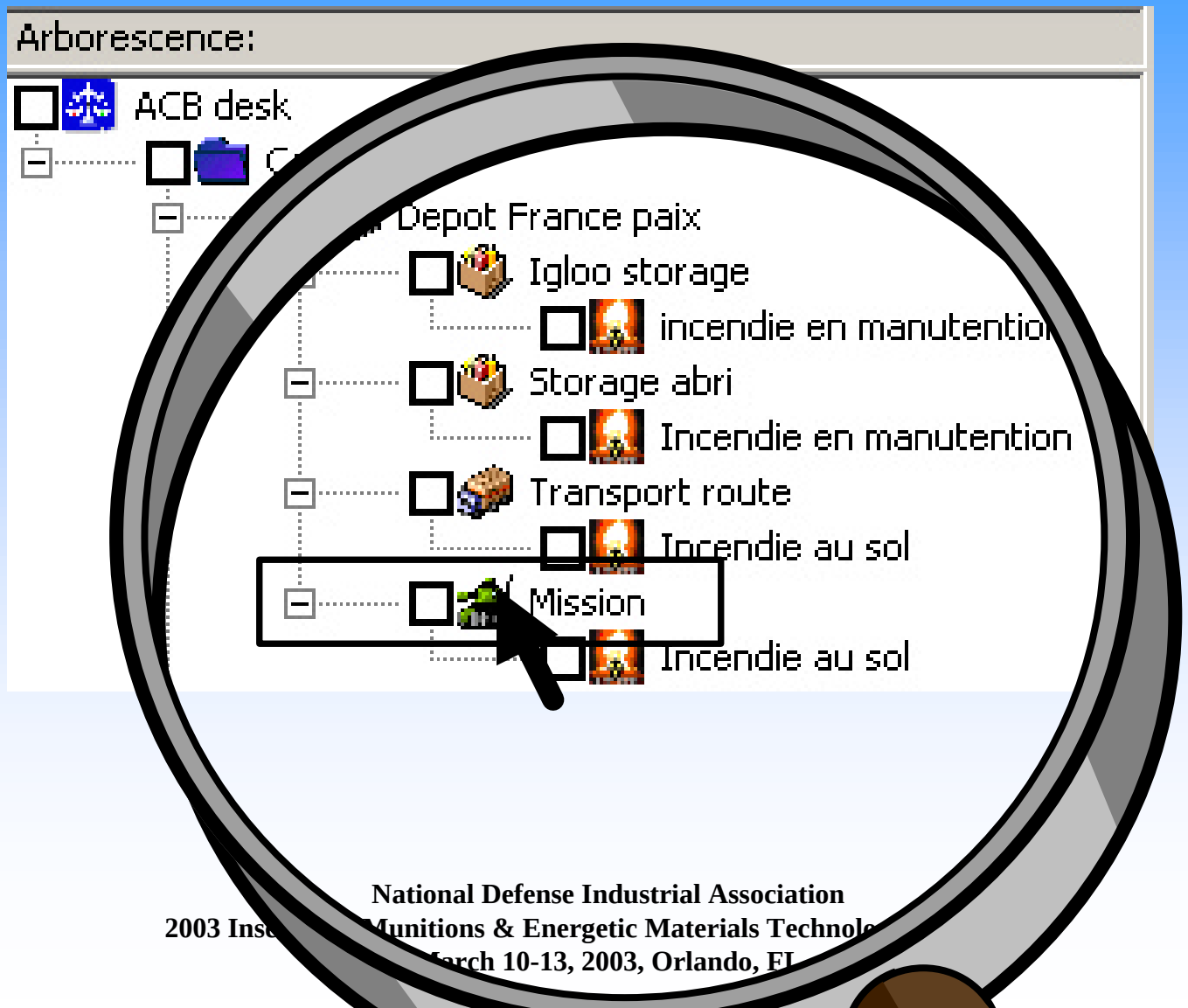


2nd level of the analysis

ACB 4.0

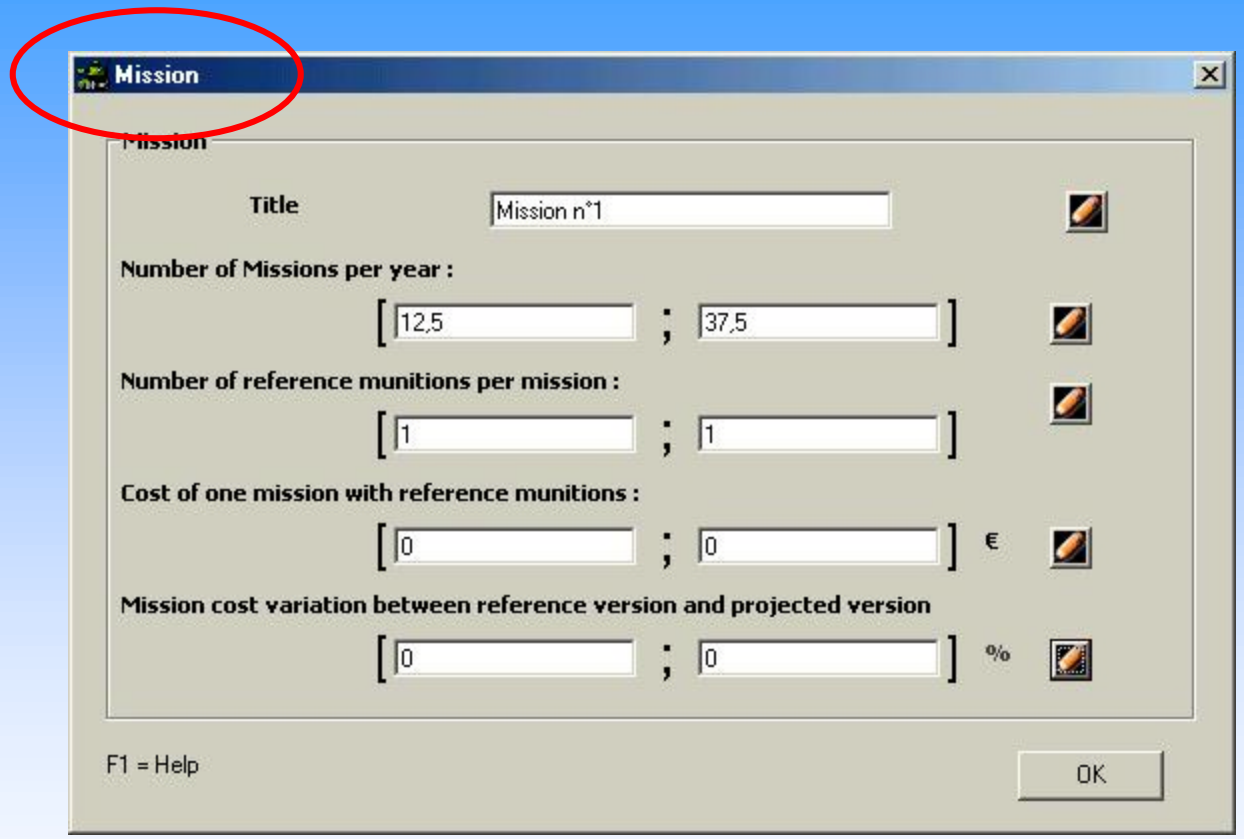

Sequence
Descriptif de l'inventaire impliqué dans la séquence
Title
Sequence n°1
Reference
Military context
Peace
Peace
Crisis
Combat
Peace/Combat
Peace/Crisis
Crisis/Combat
Peace/Crisis/Combat
Number of involved reference munition
750
Duration
11.6
years
F1 = Help
OK

ACB 4.0

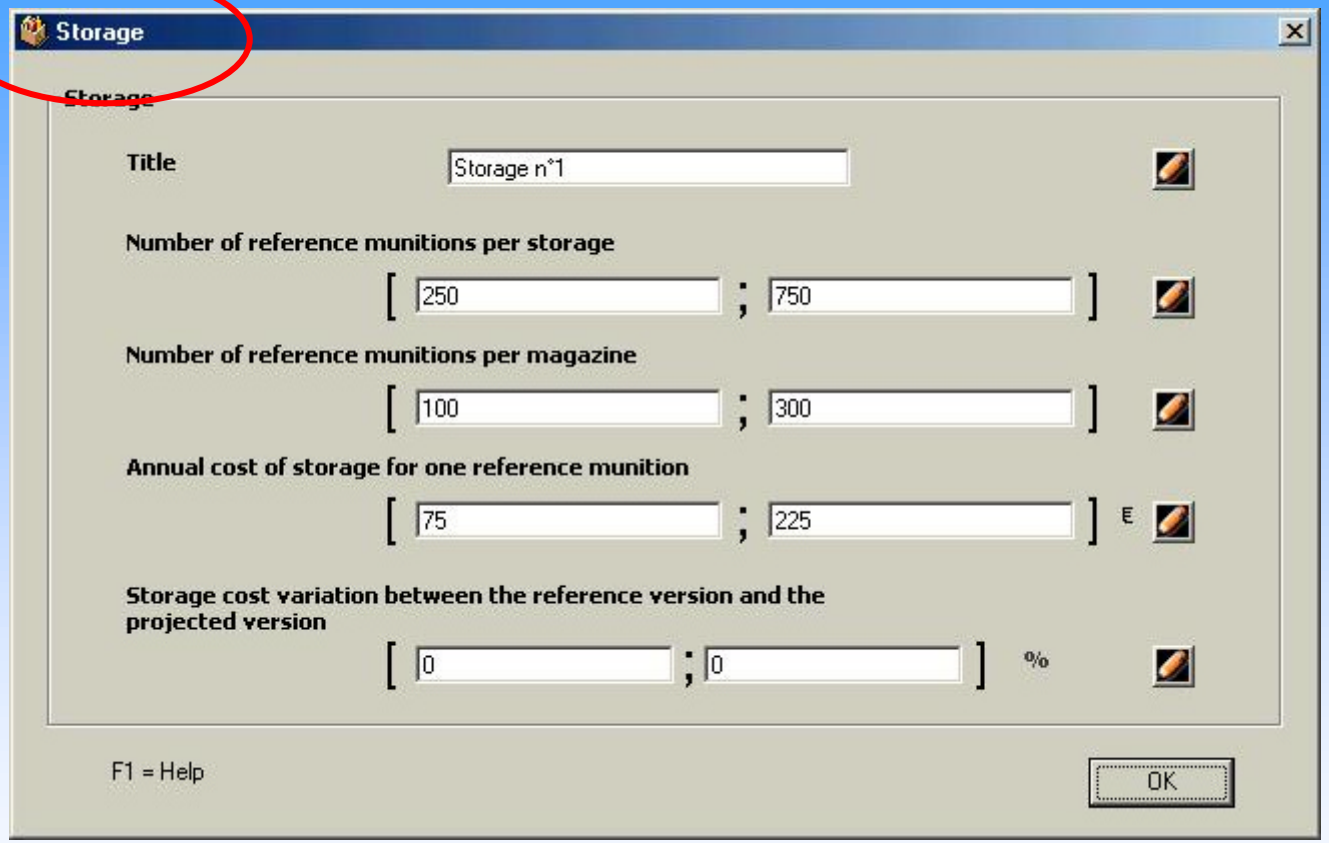

Arborescence:
ACB desk
Depot France paix
Igloo storage
incendie en manutention
Storage abri
Incendie en manutention
Transport route
Incendie au sol
Mission
Incendie au sol

Example of the 3rd level of the analysis

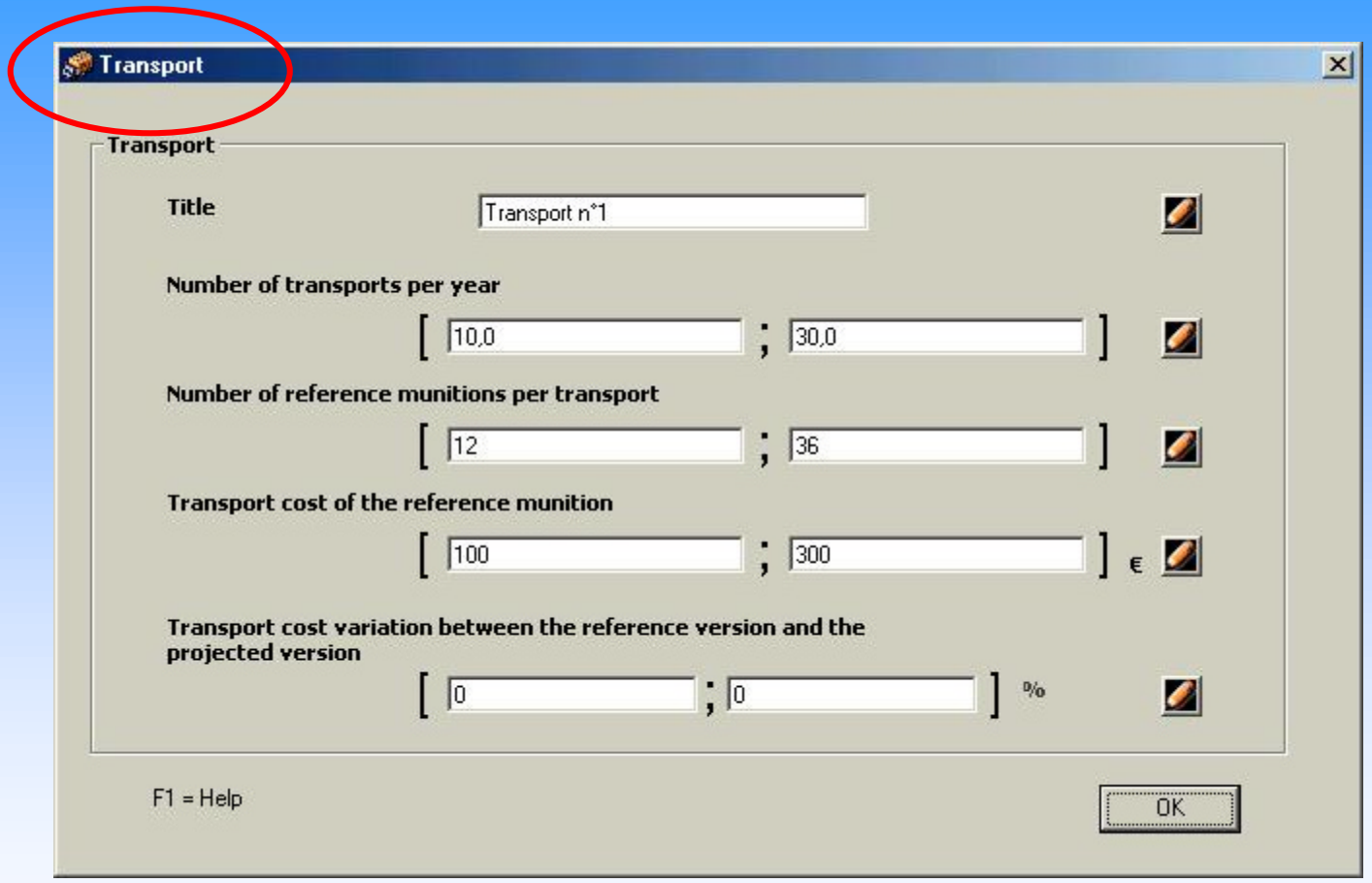
ACB 4.0


Mission
Mission
Title
Mission n°1
Number of Missions per year :
12,5
37,5
Number of reference munitions per mission :
1
1
Cost of one mission with reference munitions :
0
0
€
Mission cost variation between reference version and projected version
0
0
%
F1 = Help
OK

ACB 4.0


Storage
Storage
Title
Storage n°1
Number of reference munitions per storage
250
750
Number of reference munitions per magazine
100
300
Annual cost of storage for one reference munition
75
225
€
Storage cost variation between the reference version and the projected version
0
0
%
F1 = Help
OK

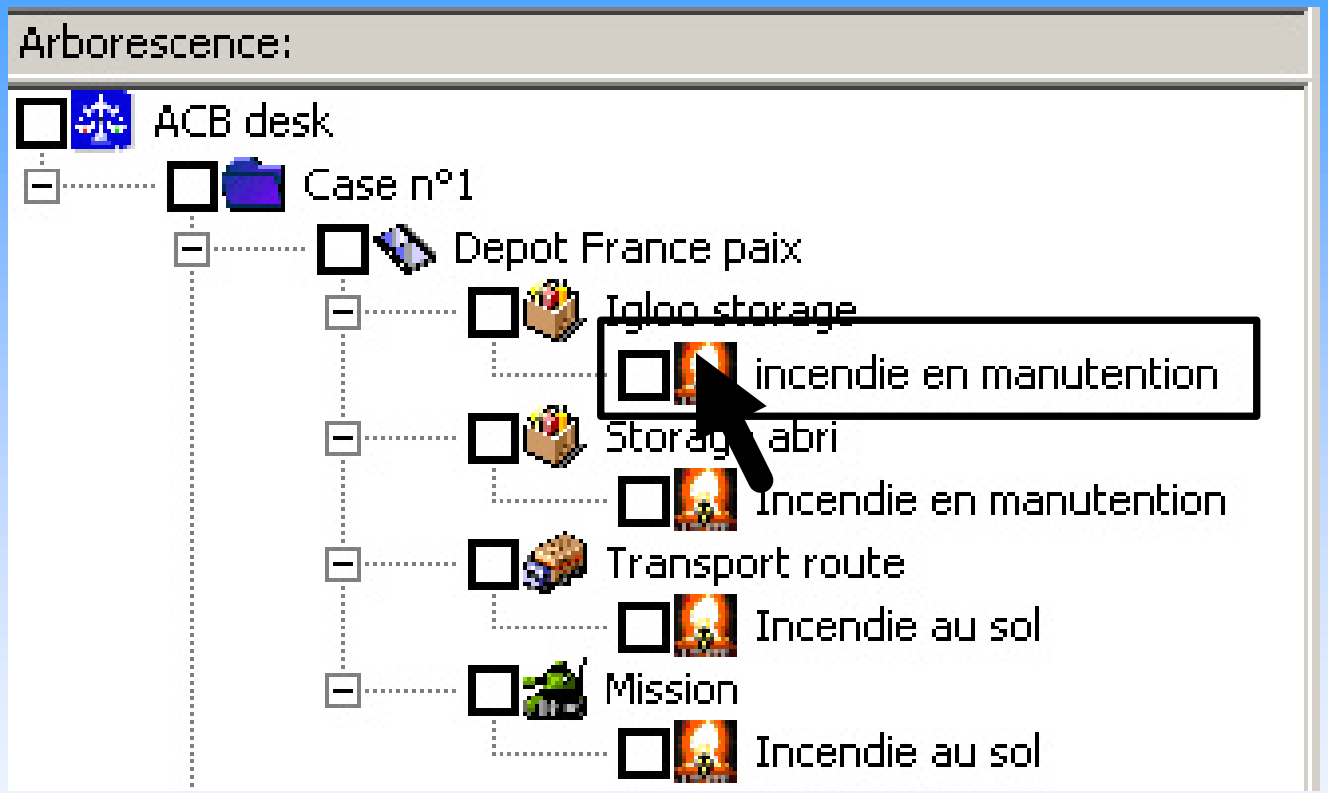
ACB 4.0


Transport
Transport
Title
Transport n°1
Number of transports per year
[10,0 ; 30,0]
Number of reference munitions per transport
[12 ; 36]
Transport cost of the reference munition
[100 ; 300] €
Transport cost variation between the reference version and the projected version
[0 ; 0] %
F1 = Help
OK

CLUB MURAT

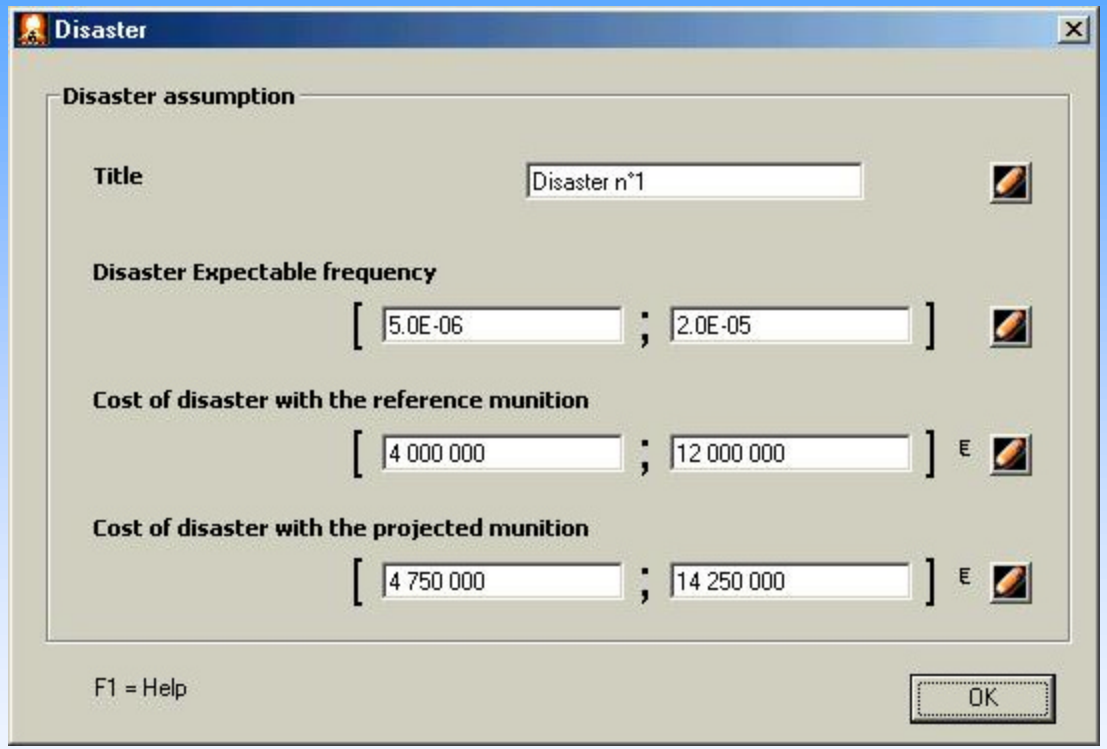
ACB 4.0

ACB 4.0



4th level of the analysis

ACB 4.0


Disaster
Disaster assumption
Title
Disaster n°1
Disaster Expectable frequency
5.0E-06
2.0E-05
Cost of disaster with the reference munition
4 000 000
12 000 000
€
Cost of disaster with the projected munition
4 750 000
14 250 000
€
F1 = Help
OK

The Möller formula as used in ACB software

- Benefit of the IM program=

  + Logistic benefits

  + Potential benefits

  - Acquisition costs

CBA soft evolutions

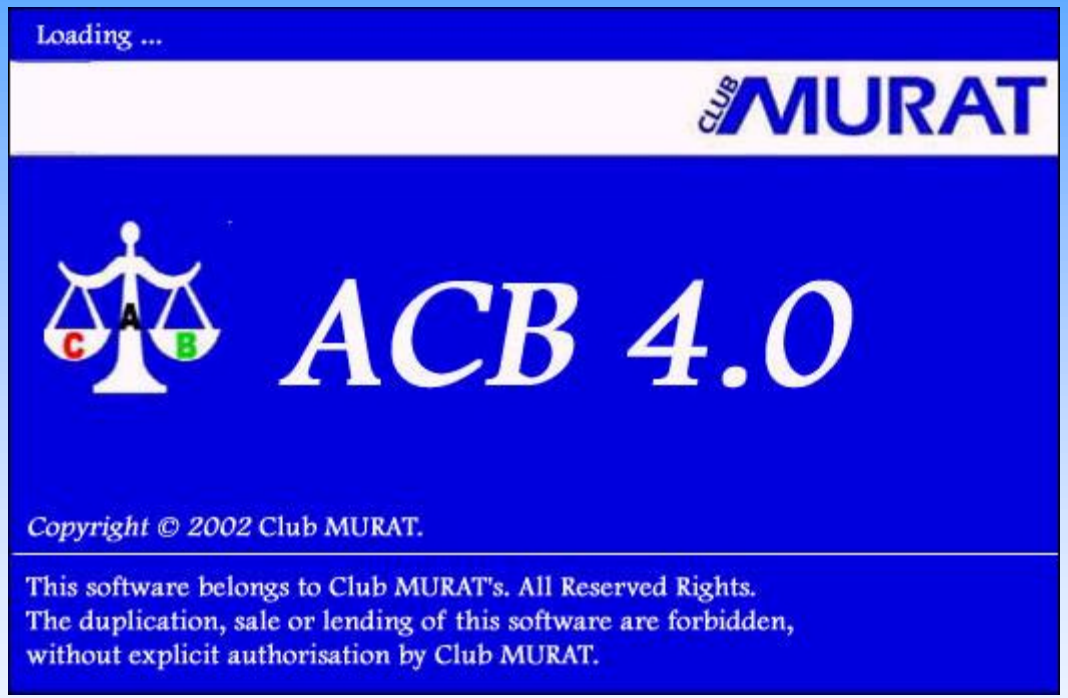
Version 2.8

- Mono-scenario
- Difficult to estimate the parameters exact value

Version 3.0

- Multi-scenario
- Difficult to estimate the parameters exact value

ACB 4.0


Loading ...
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ACB 4.0
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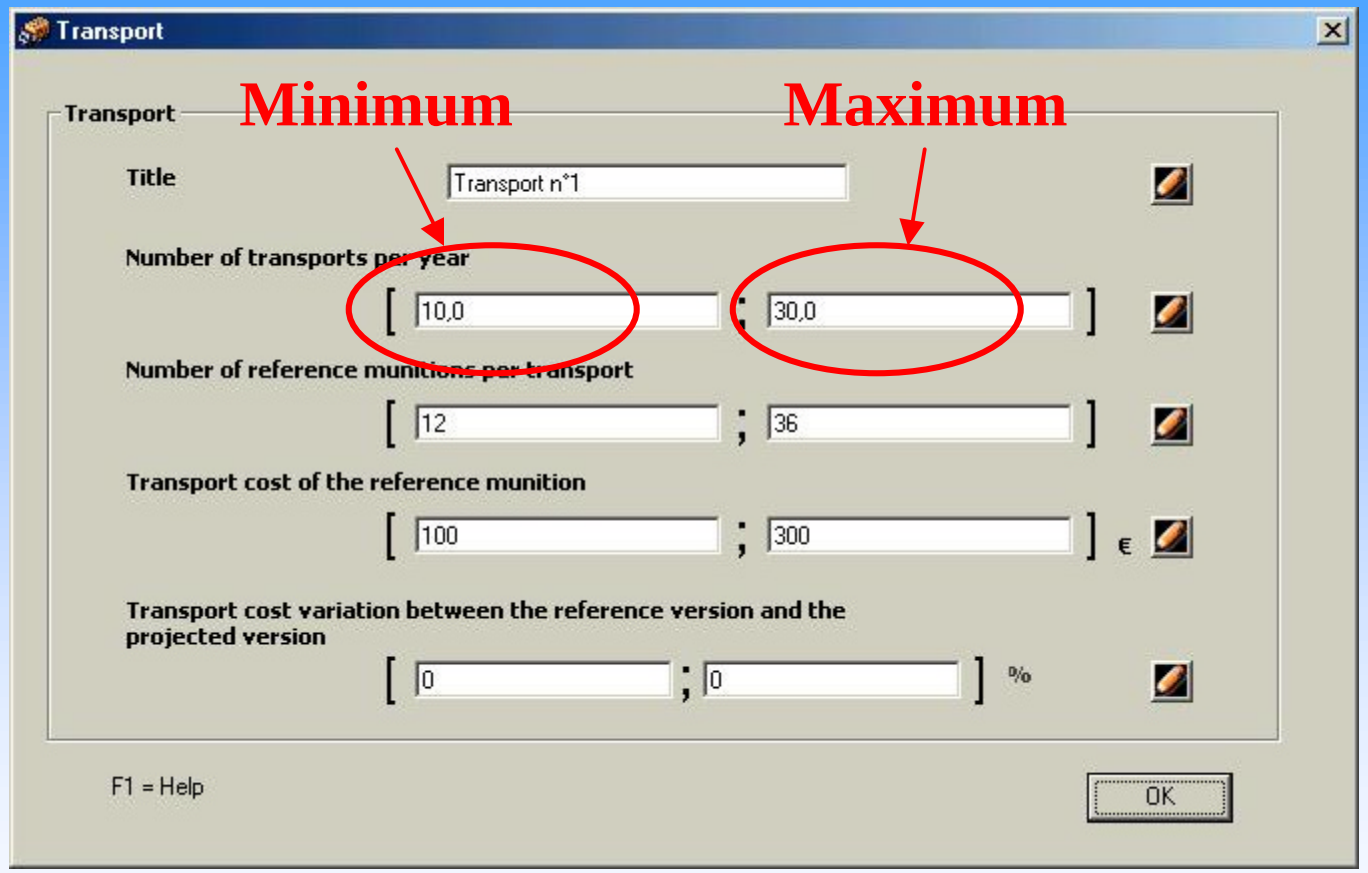
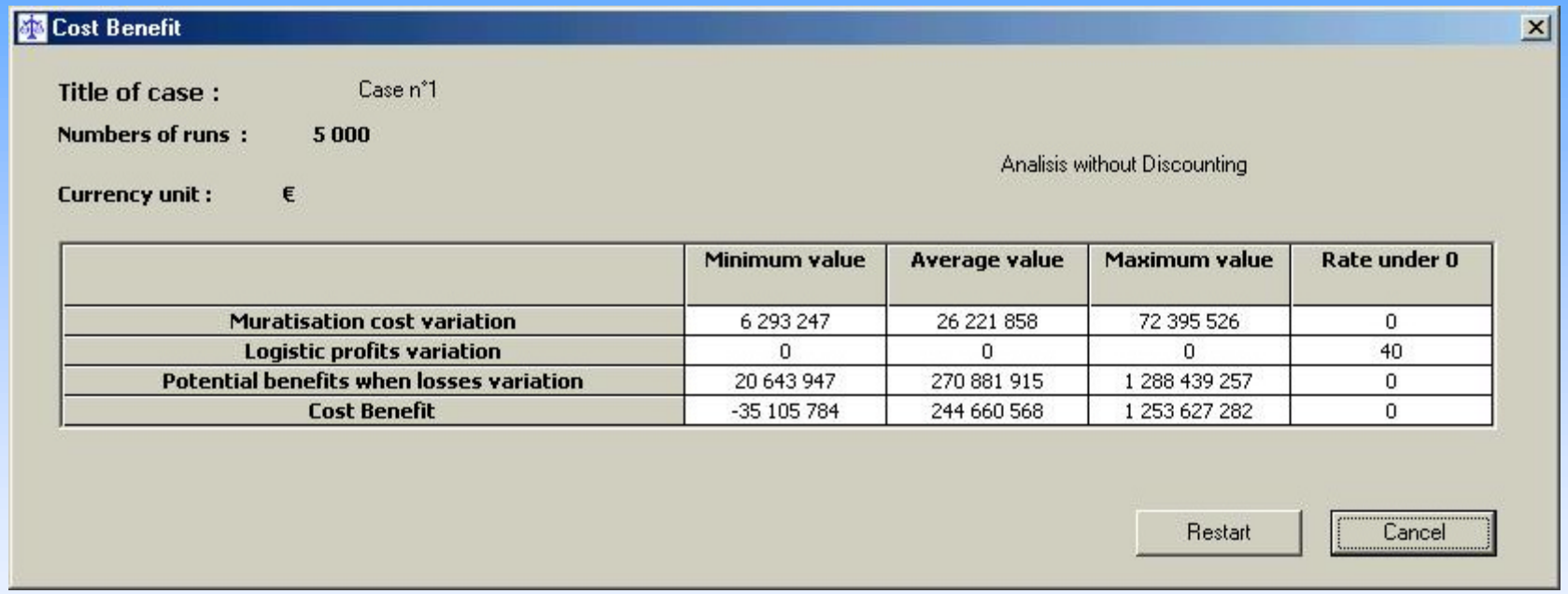
ACB 4.0

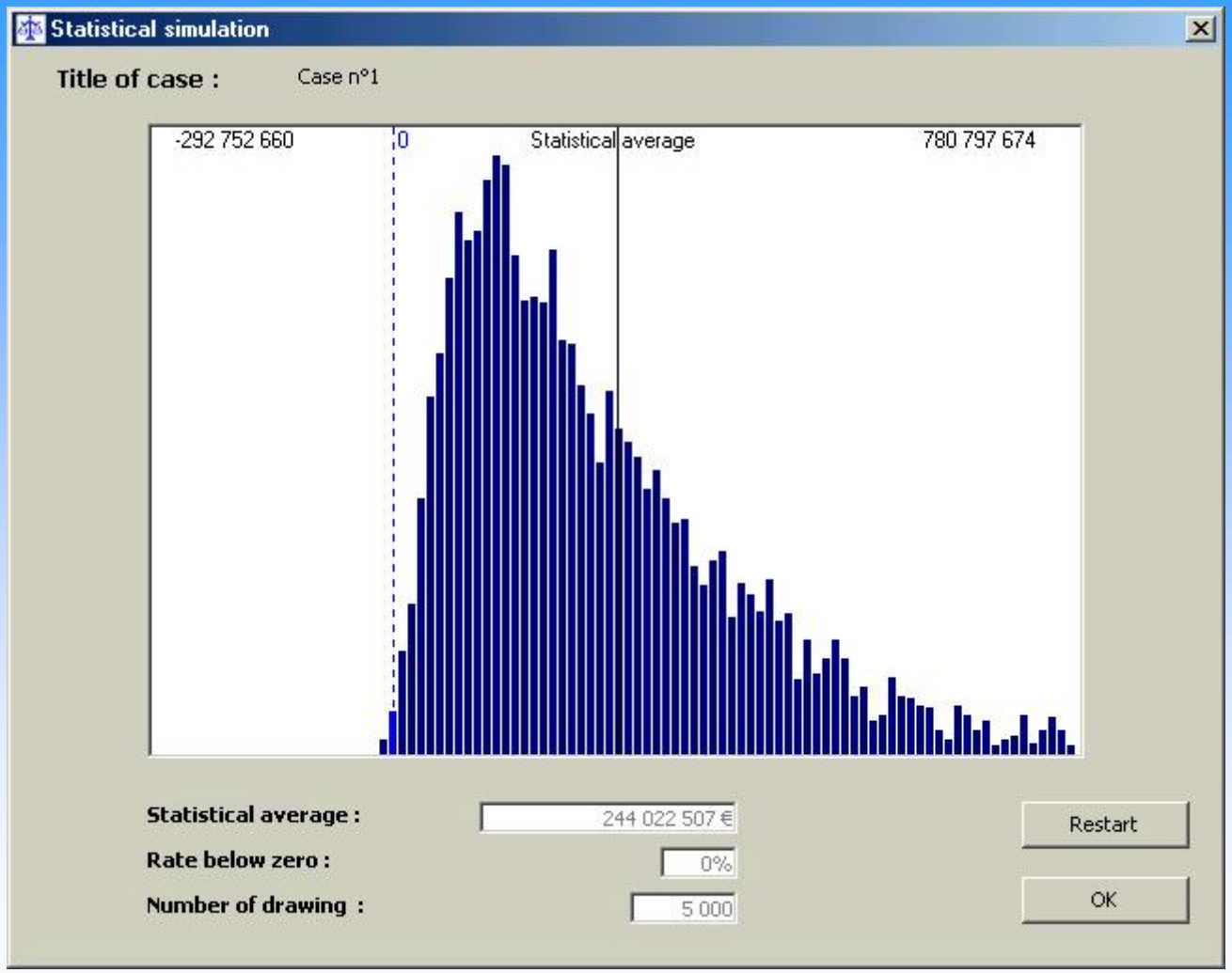

Transport
Minimum
Maximum
Transport
Title
Transport n°1
Number of transports per year
10,0
30,0
Number of reference munitions per transport
12
36
Transport cost of the reference munition
100
300
€
Transport cost variation between the reference version and the projected version
0
0
%
F1 = Help
OK

ACB 4.0



	Minimum value	Average value	Maximum value	Rate under 0
Muratisation cost variation	6 293 247	26 221 858	72 395 526	0
Logistic profits variation	0	0	0	40
Potential benefits when losses variation	20 643 947	270 881 915	1 288 439 257	0
Cost Benefit	-35 105 784	244 660 568	1 253 627 282	0

ACB 4.0


Statistical simulation
Title of case :
Case n°1
-292 752 660
0
Statistical average
780 797 674
Statistical average :
244 022 507 €
Rate below zero :
0%
Number of drawing :
5 000
Restart
OK