1. Import an XML file containing an attack-defence tree created with help of ADTool

   Menu File > Import > Attack-Defence Tree

   You can import whether an attack tree (ATree) or an attack-defence tree (ADTree). The ADTree already contains some countermeasures by default.

   Note: if the attack-defence tree is successfully imported, you can go to the next step to evaluate it.

2. Evaluate the attack-defence tree

   Menu Evaluate > Attack-Defence Tree

   Interpretation of values: the evaluated ADTree contains values between 0 and 1 for each node. If a node is an attack node, this value is called success probability. On the other hand, if the node is a defence node, this value is called effectiveness.

3. Import the extract of risk analysis (JSON file)

   Menu File > Import > Extract of risk analysis

   Note: when the extract of risk analysis is correctly imported, ADTop allows you to create an association matrix.

   If the scenario name of the imported ADTree and the imported extract of risk analysis don't match, ADTop will not accept the countermeasures of extract of risk analysis as applicable countermeasures to the current ADTree and it will stop the process. Please import the ADTree and the extract of risk analysis with the same scenario name.

4. Export an association matrix

   Menu File > Export > Association matrix

   You can chose the path and export your association matrix generated using the ADTree's attack nodes and the countermeasures coming from the extract of risk analysis. An association matrix is generated for a specific situation.

   When you open your association matrix, you can observe that in columns, you have all the ADTree's attack nodes and in rows, the imported countermeasures from the extract of risk analysis.

   You should fill in your association matrix with appropriate values of effectiveness for countermeasures that apply to one or several attacks. An association matrix should contain only values between o and 1.

   Example: if you need to add a countermeasure called "Lock on server rack" to the attack "Get clear data on server" with an effectiveness of 0.5, you should find the column called Get clear data on server, and the corresponding row to "Lock on server rack" and write in this intersection (box) the value 0.5.

   Note: you need Microsoft Excel (or equivalent) installed on your computer to be able to modify your association matrix.

5. Import an association matrix

   Menu File > Import > Association matrix

   It is recommended that you import the association matrix that you exported and filled in, in step 4.

   Note: an association matrix will be considered corrupted by ADTop if one of its boxes contain an alphabetical character or a value smaller than 0 or greater than 1.

6. Generate an attack-defence tree

   Menu Generate > Attack-Defence Tree

   The objective in this step is to generate a new ADTree by adding all countermeasures imported from the association matrix.

   If, during the generation of the ADTree, ADTop finds countermeasures that apply more than once on attacks, it will ignore the other applicable attack nodes and will only apply this countermeasure once, to the closest place to the root node.

   Note: ADTop uses an association matrix to generate an ADTree. If a correct association matrix is not imported, ADTop will not generate the ADTree.

7. Evaluate an attack-defence tree

    Menu Evaluate > Attack-Defence Tree

    This process is the same as in step 2. The objective is to evaluate a new ADTree, this one including additional countermeasures.

8. Export an attack-defence tree

    Menu File > Export > Attack-Defence Tree

    In this step we export the resulting ADTree generated in XML format and with a structure accepted by ADTool, for its visualisation.

9. Export risk reduction factors

    Menu File > Export > Risk Reduction Factors

    In this step we export the risk reduction factors of the generated ADTree in JSON format.

10. Explore risk reduction factors

    You can import the generated risk reduction factors into TRICK Service in order to update your analysis accordingly.

11. Explore the attack-defence tree

    You can import into ADTool the ADTree exported in Step 8, visualise it and analyse it.