

	1. Goal Tree	2. Current Reality Tree	3. Conflict Resolution Diagram	4. Future Reality Tree	5. Prerequisite Tree
Purpose	Define a goal, critical success factors and necessary conditions for achieving it.	Define the symptoms and determine critical root causes behind them. A root cause will often consist in a faulty assumption or in a conflict.	Structure, then analyse conflicts that may lie behind critical root causes and come up with injections to solve them	Analyse if injections to conflicts and/or direct solutions to critical root causes are sufficient to achieve the goal	Define precisely, when needed, all the steps necessary to realise each entity in step 4
Questions asked and actions taken	What is the goal? What is truly necessary to achieve it (no nice-to-haves)? If some of the critical success factors or necessary conditions are not in place, go to step 2 to analyse why.	What are the root level causes behind the symptoms identified and are they sufficient to produce them? How, precisely, do the root causes lead to the symptoms? If there is a conflict, go to step 3. If not, go directly to step 4.	What are the conflicts behind critical root causes? Do the conflicts really exist? What are the logical connections between the entities in the CRD and are all those connections valid? What may be done differently to eliminate the conflicts? Use those suggestions as inputs in step 4.	Are the injections or direct solutions really sufficient to achieve the goal or is something more needed? How precisely will they lead to this? Are there any negative effects resulting from the solutions? If some entities need further step-by-step analysis, go to step 5.	What are the necessary steps to realise each entity? Are there obstacles on the way? How can those obstacles be removed? When done, use the Prerequisite Tree as a basis for a project plan.
Type of reasoning	Necessity logic (In order to ... We must)	Sufficiency logic (If ... Then)	Necessity logic (In order to ... We must)	Sufficiency logic (If ... Then)	Necessity logic (In order to ... We must)
Validity checklist (categories of legitimate reservations): Follow this list to check the validity for each entity and each connection in the logic trees.	Is any additional explanation required for the cause, or effect, as written?	Is any additional explanation required for the cause, or effect, as written?	Is any additional explanation required for the cause, or effect, as written?	Is any additional explanation required for the cause, or effect, as written?	Is any additional explanation required for the cause, or effect, as written?
	Is the connection between cause and effect convincing at face value?	Is the connection between cause and effect convincing at face value?	Is the connection between cause and effect convincing at face value?	Is the connection between cause and effect convincing at face value?	Is the connection between cause and effect convincing at face value?
	Are any intermediate effects missing between cause and effect?	Are any intermediate effects missing between cause and effect?	Are any intermediate effects missing between cause and effect?	Are any intermediate effects missing between cause and effect?	Are any intermediate effects missing between cause and effect?
	Is the statement in each entity a complete idea?	Is the statement in each entity a complete idea?	Is the statement in each entity a complete idea?	Is the statement in each entity a complete idea?	Is the statement in each entity a complete idea?
	Is the statement structurally sound; that is, does it express only one idea in a single entity, is there no embedded if-then statement within the entity?	Is the statement structurally sound; that is, does it express only one idea in a single entity, is there no embedded if-then statement within the entity?	Is the statement structurally sound; that is, does it express only one idea in a single entity, is there no embedded if-then statement within the entity?	Is the statement structurally sound; that is, does it express only one idea in a single entity, is there no embedded if-then statement within the entity?	Is the statement structurally sound; that is, does it express only one idea in a single entity, is there no embedded if-then statement within the entity?
	Does the statement seem valid?	Does the statement seem valid?	Does the statement seem valid?	Does the statement seem valid?	Does the statement seem valid?
	Does the cause really result in the effect when read out as an if-then statement?	Does the cause really result in the effect when read out as an if-then statement?	Does the cause really result in the effect when read out as an if-then statement?	Does the cause really result in the effect when read out as an if-then statement?	Does the cause really result in the effect when read out as an if-then statement?
		If the cause is intangible, can an additional predicted effect be identified?	If the cause is intangible, can an additional predicted effect be identified?		
	Is the cause sufficient to produce the effect or are other causes needed too?	Is the cause sufficient to produce the effect or are other causes needed too?	Is the cause sufficient to produce the effect or are other causes needed too?	Is the cause sufficient to produce the effect or are other causes needed too?	Is the cause sufficient to produce the effect or are other causes needed too?
	Is the cause really necessary to produce the effect; is it certain that the effect will not be produced if the cause does not exist?		Is the cause really necessary to produce the effect; is it certain that the effect will not be produced if the cause does not exist?		Is the cause really necessary to produce the effect; is it certain that the effect will not be produced if the cause does not exist?
	Is the cause the only possible cause or could something else produce the effect by itself?	Is the cause the only possible cause or could something else produce the effect by itself?	Is the cause the only possible cause or could something else produce the effect by itself?		
	Is the cause really causing the effect, or is the stated effect in fact causing the stated cause?	Is the cause really causing the effect, or is the stated effect in fact causing the stated cause?	Is the cause really causing the effect, or is the stated effect in fact causing the stated cause?	Is the cause really causing the effect, or is the stated effect in fact causing the stated cause?	
	What other effects should lead from the cause, and do they exist?	What other effects should lead from the cause, and do they exist?	What other effects should lead from the cause, and do they exist?	What other effects should lead from the cause, and do they exist?	
Is there circular logic in the cause-effect relationship?	Is there circular logic in the cause-effect relationship?	Is there circular logic in the cause-effect relationship?	Is there circular logic in the cause-effect relationship?	Is there circular logic in the cause-effect relationship?	