

THREE STEP TO DEFINE FUNCTION-FEATURES MODEL

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THREE STEP TO DEFINE FUNCTION-FEATURES MODEL

(Related to "New problem" technology of problem solving, Contradiction Technology and ARIZ, Model EPV, Law of System Completeness, Multi-screen advanced scheme)

1. Describe by common words function of a system.

If you have trouble with identification of one function describe several functions that are necessary to realize to satisfy given Target and choose one of them. You can use Fishbone Diagram in order to identify hierarchical levels of function.

Comment: In terms of Altshuller's ARIZ the target is Main Production Process (MPP)

2. Reformulate defined at step 1 Functions, using pattern <verb> + <object> + <additives>

Comment: In terms of Altshuller's ARIZ the object is Product.

3. Reformulate defined at step 1 Functions' using pattern <verb"> + <feature of object>

Comment: Verb" can be one from the list

- Conserve – value of a property.
- Change, modify
 - increase
 - decrease

Comment Object – mean “product”.

As result of using 3 step algorithm of function formulation, a contradiction of a parameter (physical contradiction for physical parameters) can be formulated by more easy way using pattern:

<Object> has to <verb" + feature of object>, because <restrictions from Specific situation requirements viewpoint>

<Object> doesn't have to <verb" + feature of object>, because <restrictions from Objective Laws requirements viewpoint>

where,

<Object> is given from step 2;

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<verb" + feature of object> is given from Step 3;

<restrictions from Specific situation requirements viewpoint> are given from cause of problem Analysis;

<restrictions from Objective Laws requirements viewpoint> are given from knowledge of Physics, Chemistry an other fundamental science including Laws of Technical Systems Evolution from TRIZ.

The obtained result can be used in border of model: Target – Functions – Features.