# Action Rules and Meta-actions

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*Action rules describe possible transitions of objects in a decision system S from one state to another with respect to the decision attribute. Classification attributes in S are partitioned into stable and flexible. Meta-actions are defined as actions which trigger changes of flexible attributes in S either directly or indirectly because of correlations among certain attributes in the system. In medical area, taking a drug is an example of a meta-action since some test results (values of attributes in S) for a given patient will get changed. Laboratory and radiological tests are examples of classification attributes which are flexible. Early research on action rule discovery followed rule-based approach and it required extraction of classification rules from a decision system before constructing any action rule. Newest algorithms follow an object-based approach and they extract action rules directly from a decision system. In this presentation we will show how meta-actions can be used to identify interesting action rules and action rules of the lowest cost.*