

ABSTRACT

TITLE: SIGNAL PROCESSING APPARATUS AND METHOD

An input signal SV has components representing aspects of a physical entity which are in a known state and other components which are unknown. The apparatus processes the signal in accordance with stored data representing rules which indicate which combinations of the components are possible. Rules are identified which involve the known components and all of the combinations consistent with the known states are identified. If all of these combinations have the same value for a particular component, the component is determined to have that value in the output signal. The rules are stored as binary representations of the possible combinations, and the components of the input and output signals may represent two allowable states, tautology (undefined state) and inconsistency (inallowable state).

(Figure 7)