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- (54) **Title:** TRAINING PREDICTION MODELS FOR PREDICTING UNDESIRED EVENTS DURING EXECUTION OF A PROCESS

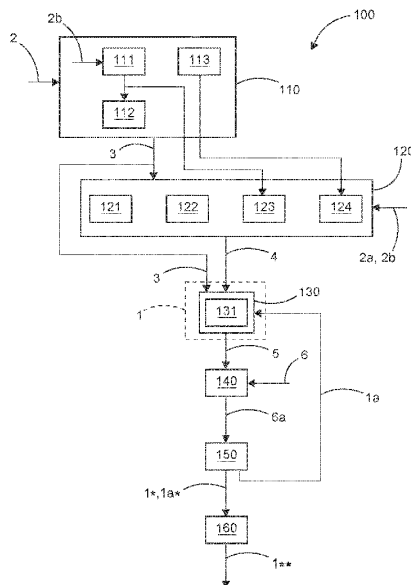


Fig. 1

(57) **Abstract:** A method (100) for training a prediction model (1) for predicting the likelihood that at least one predetermined undesired event will occur during execution of a process (2) using training samples (3), wherein each training sample (3) comprises data that characterizes a state of the process (2), and the method (100) comprises the steps of: obtaining (110) training samples (3) representing states of the process (2) that do not cause the undesired event, and labelling these training samples with a pre-set low likelihood of the undesired event occurring; obtaining (120), based at least in part on a process model (2a) and a set of predetermined rules (2b) that stipulate in which states of the process (2) there is an increased likelihood of the undesired event occurring, further training samples (4) representing states of the process (2) with an increased likelihood to cause the undesired event, and labelling these training samples (4) with said increased likelihood; providing (130) training samples (3, 4) to the to-be-trained prediction model (1), so as to obtain, from the prediction model (1), a prediction (5) of the likelihood for occurrence of the undesired event in a state of the process (2) represented by the respective sample (3, 4); rating (140) a difference between the prediction (5) and the label of the respective sample (3, 4) by means of a predetermined loss function (6); and optimizing (150) parameters (1a) that characterize the behavior of the prediction model (1), such that, when predictions (5) on further samples (3, 4) are made, the rating (6a) by the loss function (6) is likely to improve.

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