Goal-Plan hierarchy for test *testfr01*

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July 29, 2010

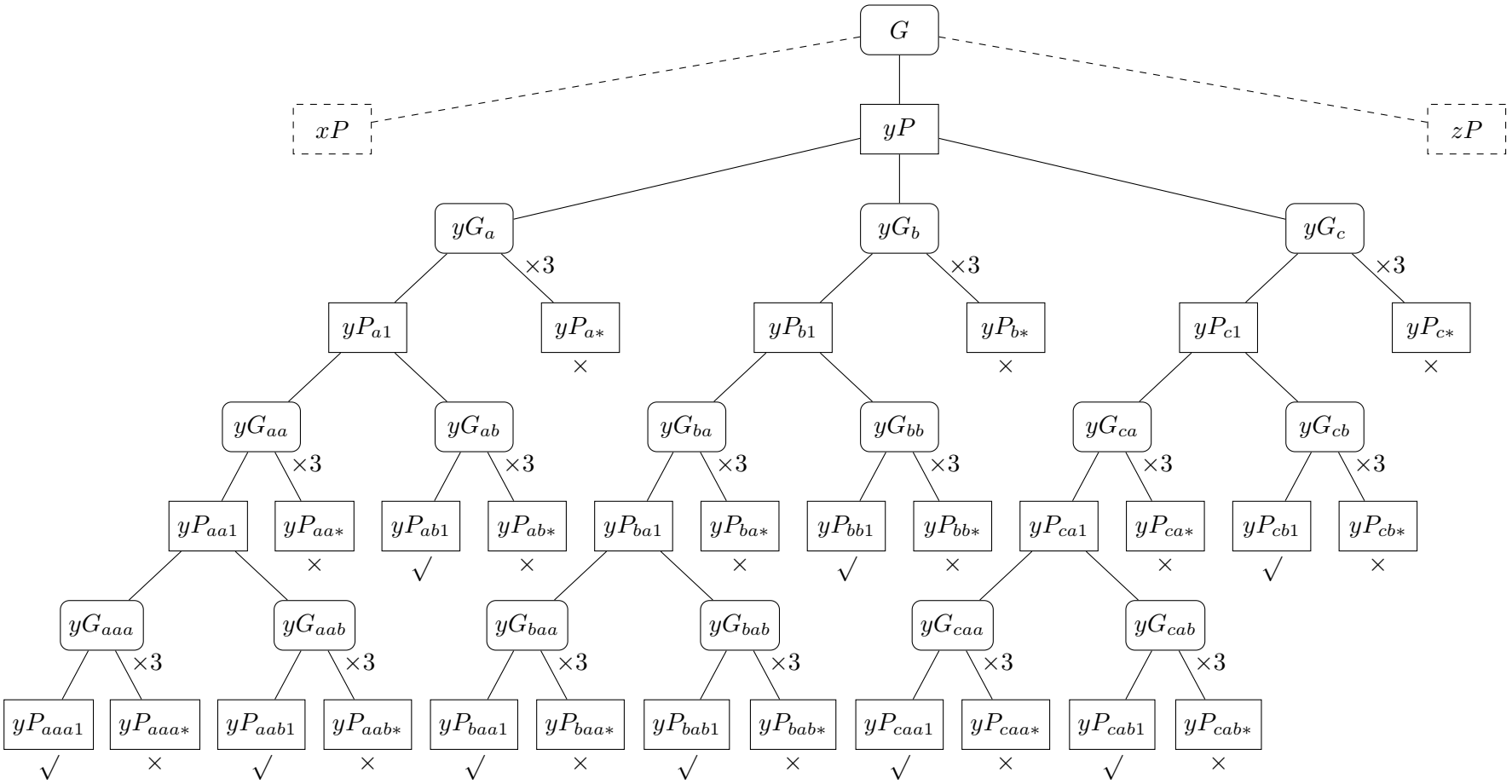

Figure 1: The hierarchy has three top level plans xP, yP and zP and the total number of worlds is 2^5. All solutions exist in plan yP. Successful execution trace is of length nine distributed between goals yG_a and yG_c. Plans xP and zP have the same structure as yP apart from the fact that the final sub-goals xG_{cb} and zG_{cb} have no solutions causing xP and zP to always fail. All leaf plans marked $\times$, will fail under normal operation but have the side-effect of toggling *one* randomly selected state variable so learning with failure recovery becomes difficult. The aim is to compare how many actions it takes on average for the top level goal G to succeed — with and without failure recovery.