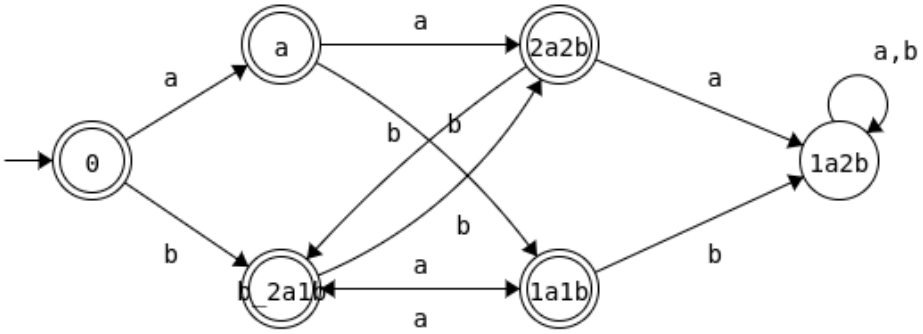
Exercise 11: Minimum DFA for $\{w \in \{a,b\}^* \mid \forall x,y : ((w = xy \wedge |x| \geq 3) \Rightarrow (|x|_a \in \dot{2} \vee |x|_b \notin \dot{2}))\}$

Describe the minimum DFA that recognizes the language of the words over $\{a,b\}$ such that every prefix of length greater than or equal to 3 has an even number of a's or an odd number of b's.

Authors: Guillem Godoy / *Documentation:*

Date: 2025-02-19 15:58:46
Verdict: **accepted**

Correct automaton.



Fullscreen

Switch to text editor

Usage:

- **Add a state:** double-click on background.
- **Add a transition:** shift-drag from a state to a state.
- **Make a starting state:** shift-drag from background to a state.
- **Make an accepting state:** double-click on a state.

Automaton encoded in text:

```
         a      b
0        a      b_2a1b +
1a1b     b_2a1b 1a2b   +
1a2b     1a2b   1a2b
2a2b     1a2b   b_2a1b +
a        2a2b   1a1b   +
b_2a1b   1a1b   2a2b   +
```

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