Errata
Last updated May 2, 2017


This list is a work in progress. Some of the following corrections are tentative and may be revised, and additional corrections will probably be added.

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**Section 2.3.3.** In Step 1 of RPG-landmark, replace the phrase “and the only landmark is $\phi$ itself, so return $\phi$” with “and there are no intermediate states, so return $\emptyset$.”

**Exercise 3.19.** Part (a) should be

What sequence of commands will Refine-lookahead, Refine-lazy-lookahead, and Refine-concurrent-lookahead execute?

**Definition 4.4.** The first sentence of the definition should be

A ground instance of $(T', C')$ of $(T, C)$ is *consistent* if $T'$ satisfies $C'$ and does not specify two different values for a state variable at the same time.

**Example 4.5.** The second paragraph should be

The assertions $[t_1, t_2] \text{loc}(r_1) = \text{loc}1$ and $[t_2, t_3]\text{loc}(r_1) : (\text{loc}1, \text{loc}2)$ are nonconflicting: they have no inconsistent instances.

**Section 5.2.3.** The definition of a reachability graph should be this:

$$\text{Graph}(s, \pi) = (\hat{\gamma}(s, \pi), \{(s', s'') \mid s' \in \hat{\gamma}(s, \pi) \text{ and } s'' \in \gamma(s', \pi(s'))\})$$

or perhaps more clearly,

$$\text{Graph}(s, \pi) = (V, E), \text{ where}$$

$$V = \hat{\gamma}(s, \pi),$$

$$E = \{(s', s'') \mid s' \in \hat{\gamma}(s, \pi) \text{ and } s'' \in \gamma(s', \pi(s'))\}$$
Section 5.2.3. The last line before Example 5.5 should be

We let \( \hat{\Gamma}(s) \) be the set of all states that are \textit{reachable} from \( s \), i.e.,
\[
\Gamma(s) = \bigcup_{\pi} \hat{\gamma}(s, \pi).
\]

Section 6.2.3. The paragraph after Equation 6.3 should be

A closed policy \( \pi' \) \textit{dominates} a close policy \( \pi \) if and only if \( V^{\pi'}(s) \leq V^{\pi}(s) \) at every state \( s \) where both \( \pi \) and \( \pi' \) are defined. A closed policy \( \pi^* \) is \textit{optimal} if it dominates all other closed policies. At every state \( s \) where \( \pi^* \) is defined, it has a minimal expected cost:
\[
V^*(s) = \min_{\pi} V^{\pi}(s).
\]
Under our assumption of probabilistic planning in a domain without dead ends, \( \pi^* \) is guaranteed to exist.

Exercise 4.8. The reference to Exercise 4.4 should instead be a reference to Exercise 4.3.

Exercise 5.7(b). Remove the words “by drawing the And/Or search tree.”