# Overview

The BaTLab (and probably other sites) need to maintain an up-to-date list of which machines ought to be in their HTCondor pool. Manual maintenance of this list is painful and prone to error; and while this task could be automated outside HTCondor, so doing makes it difficult to convey that information to users and to integrate with other code which already uses HTCondor. For this reason, we introduced the concept of absent ads, which record when (startd) ads expire from the collector. Since this can only happen when a startd crashes and isn't restarted, we assumed the list so generated would be the BaTLab requires. In practice, however, condition has proven far too stringent: for one reason or another, the startd is “too good” at invalidating it ads before it goes away.

# Solution

The obvious solution, then, is to allow the administrator to decide, when an ad is invalidated, if it should also be marked (recorded as) absent. However, because invalidation queries can specify more than one ad, it proved simpler to instead expire ads that would otherwise be invalidated. This allows us to more closely mimic the existing code and reuse the existing mechanisms for determining whether an (expired) ad should become absent. As an implementation detail, we mark expired-on-invalidation ads with an expiry time of 1 (invalidated ads already use time 0); this will permit those who care to distinguish the two ads in their ABSENT\_REQUIREMENTS expression, until we add AbsentReasons in some other ticket (and set these ads' AbentReason to “invalidated”).

# Work Plan

N/A. (Work already completed.)