

Database - Feature #7076

make CAN-FIND avoid hydration

01/25/2023 02:58 PM - Greg Shah

Status: Closed	Start date:
Priority: Normal	Due date:
Assignee: Dănuț Filimon	% Done: 100%
Category:	Estimated time: 0.00 hour
Target version:	version:
billable: No	
vendor_id: GCD	
Description	
Related issues:	
Related to Database - Feature #5453: optimize FindQuery hasOne and hasAny imp...	New
Related to Database - Bug #7174: Resolve simple CAN-FIND statements faster	Test

History

#1 - 01/25/2023 02:59 PM - Greg Shah

I assume we already do this, but just in case, does CAN-FIND avoid hydration?

#2 - 01/25/2023 04:43 PM - Eric Faulhaber

It does, if we implement it as a sub-select (i.e., when it is a nested CAN-FIND in another query's WHERE clause).

It does not avoid hydration as a standalone FindQuery. Not hydrating a DMO is a relatively recent topic of discussion. Currently (until we implement [#6720](#)), every query (without a FIELDS/EXCEPT clause) which resolves to a record fully hydrates. Once [#6720](#) is implemented, we will get this for free, but I think we can do even better by altering the conversion of a standalone CAN-FIND to either be:

- (for CAN-FIND(...)): a projection query returning only the record's primary key;
- (for CAN-FIND(FIRST/LAST ...)): an exists query.

This is similar to the approach we use for the sub-selects, when CAN-FIND is nested. There is no need to bring back the DMO's data at all in these cases.

#3 - 01/25/2023 05:17 PM - Greg Shah

- Tracker changed from Support to Feature

Let's go for the quick win.

#4 - 01/25/2023 05:18 PM - Greg Shah

- Subject changed from does CAN-FIND avoid hydration? to make CAN-FIND avoid hydration

#5 - 01/26/2023 04:09 AM - Alexandru Lungu

- Related to Feature #5453: optimize FindQuery hasOne and hasAny implementations added

#6 - 01/26/2023 04:12 AM - Alexandru Lungu

I found Ovidiu's comment in [#5453-2](#) relevant for this task.

#7 - 03/14/2023 07:12 AM - Alexandru Lungu

- Related to Bug #7174: Resolve simple CAN-FIND statements faster added

#8 - 04/26/2023 10:06 AM - Alexandru Lungu

- Assignee set to Dănuț Filimon

- Status changed from New to WIP

Danut, please investigate this.

I am not sure if CAN-FIND still hydrates in the latest versions of FWD-H2 trunk (>14550).

Make some examples with stand-alone CAN-FIND (i.e. IF CAN-FIND) and nested CAN-FIND (FOR EACH tt WHERE CAN-FIND (tt2 WHERE ...)).

AFAIK, for the nested one you've worked on the conversion with "exists" that didn't hydrate.

#9 - 04/27/2023 05:32 AM - Dănuț Filimon

I've tested both temporary and persistent tables with CAN-FIND and nested CAN-FIND. CAN-FIND no longer hydrates with **trunk/rev.14552**. My examples consisted of using CAN-FIND with FIRST, LAST or no keyword.

#10 - 05/30/2023 05:20 AM - Alexandru Lungu

- Status changed from WIP to Review

- % Done changed from 0 to 100

I guess this can be rejected now?

Eric, AFAIK you are handling lazy hydration. CAN-FIND doesn't do any kind of hydration now (goes with SELECT 0), so it won't necessarily be optimized by lazy hydration. We can close this.

#11 - 06/30/2023 05:02 AM - Alexandru Lungu

- Status changed from Review to Test

#12 - 11/07/2023 05:27 PM - Eric Faulhaber

- Status changed from Test to Closed