### Foreman - Feature #16646

**Allow Foreman controllers to be extended to include fields from external plugins**

09/21/2016 02:26 PM - Andrew Kofink

<table>
<thead>
<tr>
<th>Status:</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee:</td>
<td>Shimon Shtein</td>
</tr>
<tr>
<td>Category:</td>
<td>Plugin integration</td>
</tr>
<tr>
<td>Target version:</td>
<td>1.14.0</td>
</tr>
<tr>
<td>Pull request:</td>
<td><a href="https://github.com/theforeman/foreman/pull/3887">https://github.com/theforeman/foreman/pull/3887</a></td>
</tr>
<tr>
<td>Fixed in Releases:</td>
<td></td>
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<tr>
<td>Found in Releases:</td>
<td></td>
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</table>

**Description**

**Problem:**

If an external plugin, such as Katello, uses database fields in a view that Foreman prepares in a Foreman controller, additional database queries are run from the view layer as the fields or related tables are requested. In index views, this issue causes N+1 query warnings as the view iterates over each object.

**Proposed solution:**

Allow index actions to be extended per-controller to use a private class method which provide additional fields to pass to the ActiveRecord::Relation#include method.

**Example:**

```ruby
class HostsController
  class << self
    def index_fields
      @index_fields ||= {}
    end

    def include_index_field(field_hash)
      index_fields.merge!(field_hash)
    end

    def index
      @hosts = Host.includes(self.class.index_fields)
    end
  end
end
```

**Related issues:**

- Related to Katello - Bug #16010: "Error: Request Timeout" from hammer when asked to show >400 content hosts added  
  - Closed 08/08/2016
- Related to Discovery - Refactor #17085: Make use of index scope DSL  
  - New 10/25/2016

**Associated revisions**

Revision 87f803e - 11/03/2016 09:54 AM - Shimon Shtein

Fixes #16646 - Add ability to plugins to modify index scope

**History**

- Related to Bug #16010: "Error: Request Timeout" from hammer when asked to show >400 content hosts added

- 09/21/2016 02:28 PM - Andrew Kofink

- 09/22/2016 02:52 AM - Dominic Cleal
- Category set to Plugin integration
- Status changed from New to Assigned

#3 - 09/25/2016 06:39 AM - Shimon Shtein
- Target version set to 127

#4 - 09/25/2016 02:22 PM - The Foreman Bot
- Status changed from Assigned to Ready For Testing
- Pull request https://github.com/theforeman/foreman/pull/3887 added

#5 - 09/27/2016 09:06 AM - Ivan Necas
- Target version changed from 127 to 1.5.1

#6 - 10/24/2016 02:12 PM - Ivan Necas
- Target version changed from 1.5.1 to 1.4.1

#7 - 10/25/2016 05:35 AM - Lukas Zapletal
- Related to Refactor #17085: Make use of index scope DSL added

#8 - 11/03/2016 10:01 AM - Shimon Shtein
- Status changed from Ready For Testing to Closed
- % Done changed from 0 to 100

Applied in changeset 87f8f03ea2f470076e8e7904c4f419833e81b5f0.

#9 - 11/03/2016 11:12 AM - Dominic Cleal
- Legacy Backlogs Release (now unused) set to 189