



2015

# Combining the Power of Views and Rules

# Who are we?



2015

Onaje Johnston  
PhD  
Senior Developer

@ ForumOne

Leanne Duca  
Educator





2015

# Views Rules module



# Assumptions

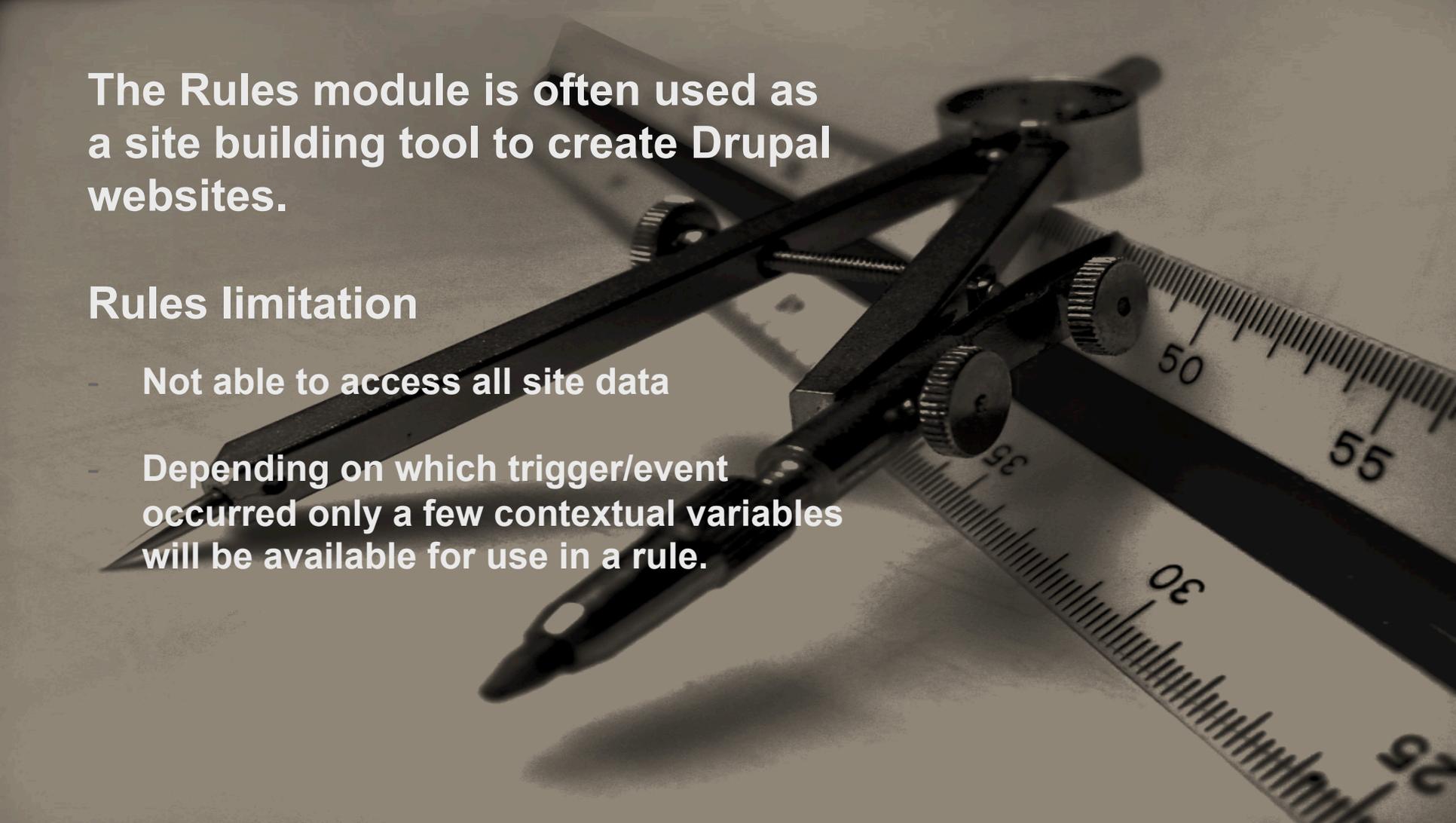


You are familiar with setting up a Drupal site

You are familiar with the views module

You are familiar with the rules module



A pair of black drafting compasses is positioned diagonally across the frame, resting on a light-colored surface. A ruler with markings is visible in the lower right corner, showing numbers 25, 30, 35, 50, and 55. The background is a plain, light-colored surface.

**The Rules module is often used as a site building tool to create Drupal websites.**

## **Rules limitation**

- **Not able to access all site data**
- **Depending on which trigger/event occurred only a few contextual variables will be available for use in a rule.**

# Background

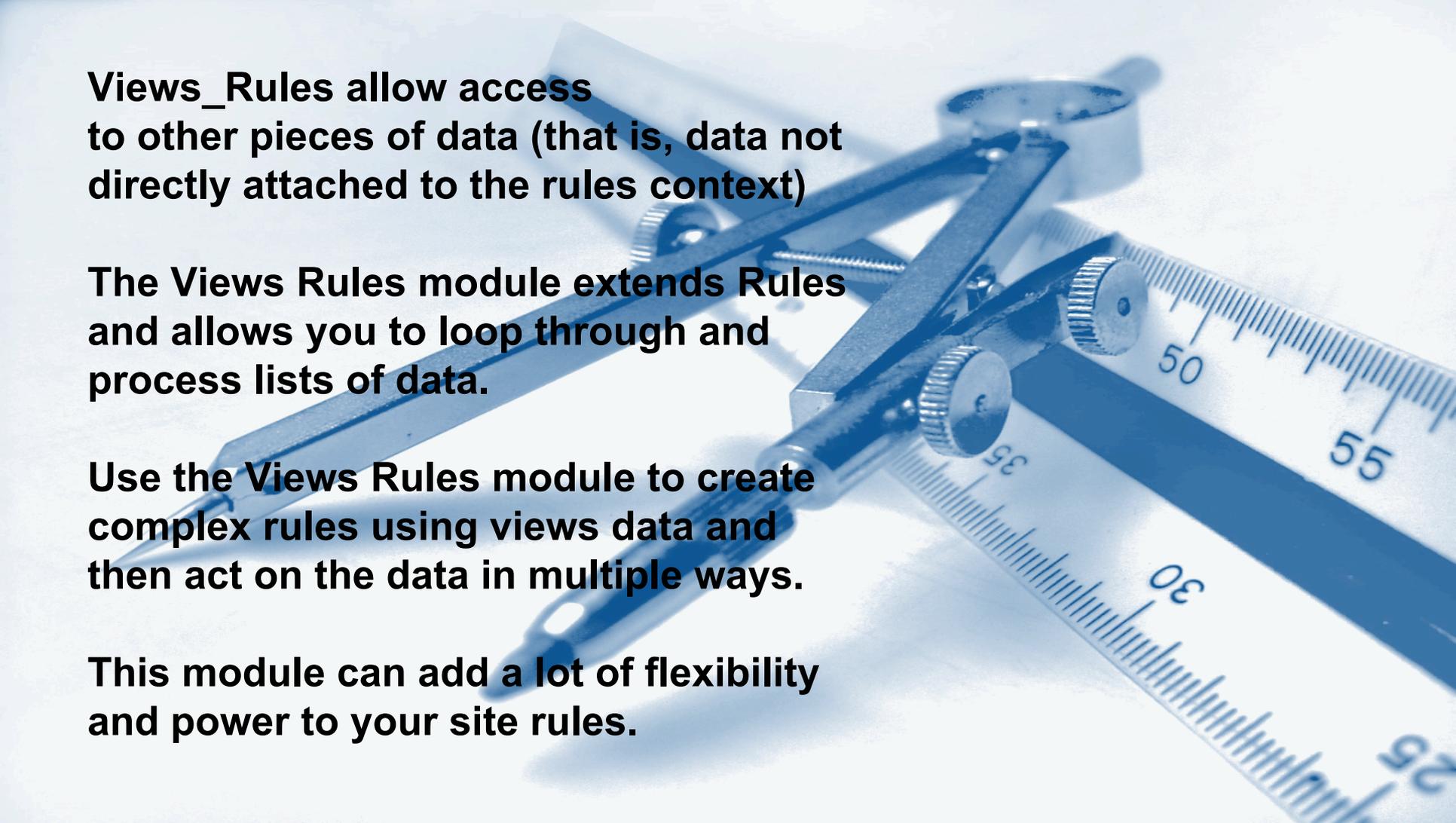
views rules makes dealing with complex loops in rules easier

## **Provides a View loop in Rules**

- similar to a regular Rules loop, but allows looping over rows of view results.

## **Collect view result rows in Views**

- collects each variable in all view result rows into list variables for use in Rules.



**Views\_Rules allow access to other pieces of data (that is, data not directly attached to the rules context)**

**The Views Rules module extends Rules and allows you to loop through and process lists of data.**

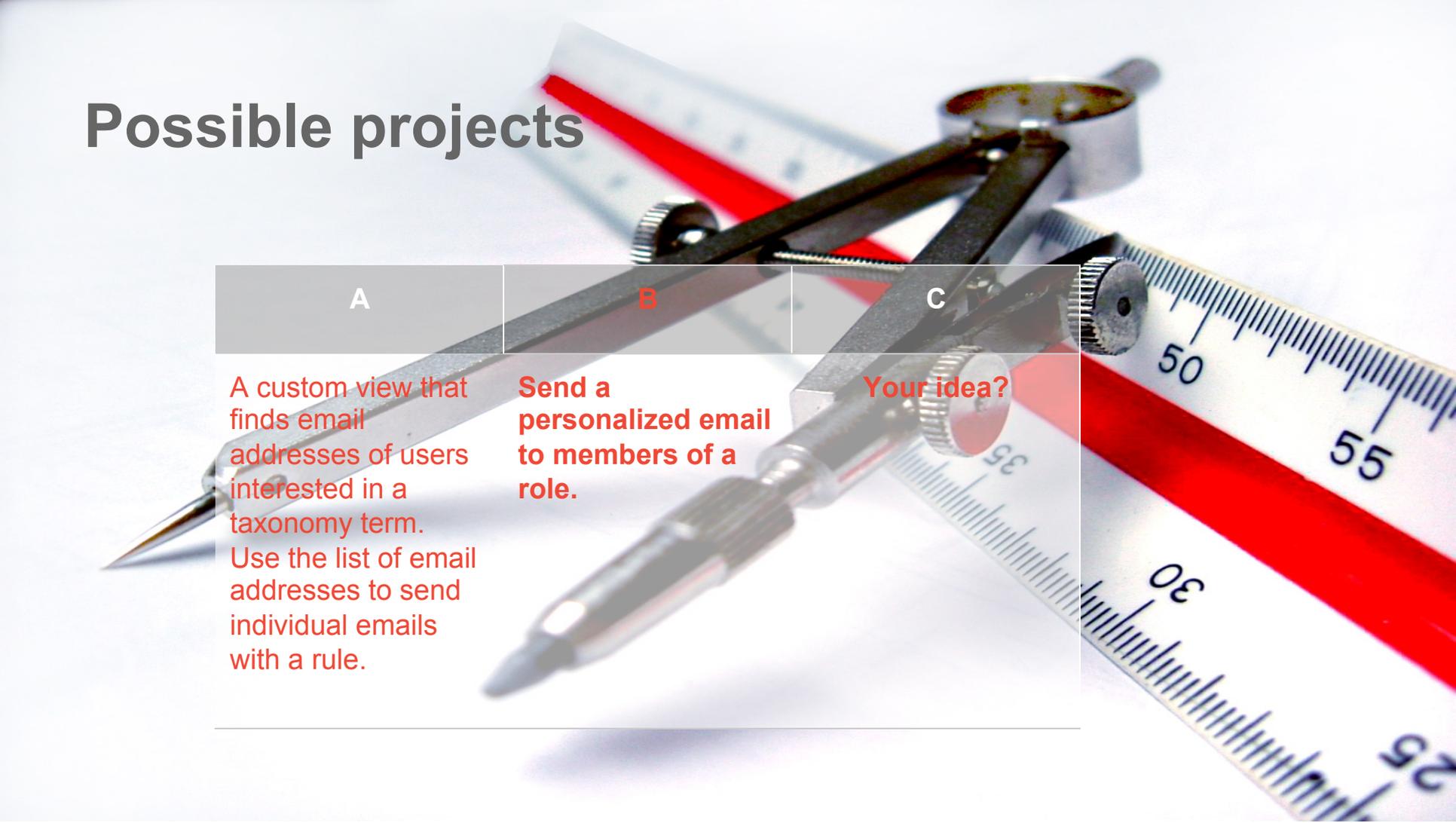
**Use the Views Rules module to create complex rules using views data and then act on the data in multiple ways.**

**This module can add a lot of flexibility and power to your site rules.**

# Possible Projects



# Possible projects

The background of the slide features a close-up, high-angle photograph of a silver metal drafting compass and a white ruler with red markings. The compass is positioned diagonally across the frame, with its two legs and adjustment screws clearly visible. The ruler shows markings for 30, 35, 50, and 55. The lighting is bright, creating soft shadows and highlighting the metallic texture of the compass.

A

A custom view that finds email addresses of users interested in a taxonomy term. Use the list of email addresses to send individual emails with a rule.

B

Send a personalized email to members of a role.

C

Your idea?

# Modules

## Required modules

Entity API - *Entity Token*

Mime Mail

Mail System

Rules

Tokens

Views

Views Rules



# Configure mail: mail system



2015

## Mail System ⊕

### MAIL SYSTEM SETTINGS

Drupal provides a default [MailSystemInterface](#) class called [DefaultMailSystem](#). Modules may provide additional classes. Each [MailSystemInterface](#) class may be associated with one or more identifiers, composed of a *module* and an optional *key*. Each email being sent also has a *module* and a *key*. To decide which class to use, Drupal uses the following search order:

1. The class associated with the *module* and *key*, if any.
2. The class associated with the *module*, if any.
3. The site-wide default [MailSystemInterface](#) class.

### Site-wide default [MailSystemInterface](#) class

MimeMailSystem

### Mime Mail module class

MimeMailSystem

### Theme to render the emails

Current

Select the theme that will be used to render the emails. This can be either the current theme, the default theme, the domain theme or any active theme.

# Configure mail: mime mail



2015

## Mime Mail o

### Sender name

The name that all site emails will be from when using default engine.

### Sender e-mail address

The email address that all site e-mails will be from when using default engine.

Use simple address format

Use the simple format of user@example.com for all recipient email addresses.

Include site style sheets

Gather all style sheets when no mail.css found in the default theme directory.

Send plain text email only

This option disables the use of email messages with graphics and styles. All messages will be converted to plain text.

Link images only

This option disables the embedding of images. All image will be available as external content. This can make email messages much smaller.

### E-mail format

Full HTML ▼

# Personalized Email



# How do you personalize the email?

The rule that sends the emails needs to have access to the information you want to insert into the email.

- The user's name
- In other words, it needs to have access to a token that contains the information.

Create a View that will list all of the users that have the role Member.

- The view will contain the user's name from their user profile

Create a Rule that will use this view to loop through the list of users and send a personalized email, with the user's name, to each one.



# Views: Create a Rules Display

## Displays

Entity Reference **Rules** + Add

### Rules details

Display name: [Rules](#)

#### Title

Title: [Members](#)

#### Format

Format: [Table](#) | [Settings](#)

#### Fields

[Add](#) ▼

[User: Name](#)

[User: E-mail](#)

#### Filter criteria

[Add](#) ▼

[User: Active \(Yes\)](#)

[User: Roles \(= member\)](#)

#### Sort criteria

[Add](#) ▼

[User: Name \(asc\)](#)

#### Rules settings

Row variables: [edit field info](#)

Access: [Permission](#) | [View user profiles](#)

#### Header

[Add](#)

#### Footer

[Add](#)

#### Pager

Items to display:

[Display a specified number of items](#) | [10 items](#)

Add fields from the user profile

- Name
- Email

If a field is not in the Rule display for the view, it will not be available for use by a rule

# Rules Display :: Rules ::: row variables

Configure the row variables

### Member Info (User)

Rules: row variables

Configure the variable info for each field as they would be used in Rules.

User: Name

**Enabled**  
Uncheck this box to make this variable unavailable for use in Rules.

**Use rendered result**  
Check to use rendered value (e.g. rewritten) instead of the raw value. Note that a rendered field may contain markup but is not affected by the field's "Style settings".

Data type	Label	Name
Text	User: Name	name

User: E-mail

**Enabled**  
Uncheck this box to make this variable unavailable for use in Rules.

**Use rendered result**  
Check to use rendered value (e.g. rewritten) instead of the raw value. Note that a rendered field may contain markup but is not affected by the field's "Style settings".

Data type	Label	Name
Text	User: E-mail	mail

Apply Cancel

Caching: none

# Rules



2015

## Active rules

Name	Event	Status	Operations
<a href="#">Send Email to Member of Role</a> Machine name: rules_news_email_to_member, Weight: 0	After saving new content of type <i>Responsive Email</i>	Custom	<a href="#">edit</a> <a href="#">disable</a> <a href="#">clone</a> <a href="#">delete</a> <a href="#">export</a>
<a href="#">Assign Role to New User</a> Machine name: rules_register_new_member_for_news_letter, Weight: 0	After saving a new user account	Custom	<a href="#">edit</a> <a href="#">disable</a> <a href="#">clone</a> <a href="#">delete</a> <a href="#">export</a>
<a href="#">ReSend Email to Member of Role</a> Machine name: rules_resend_email_to_member_of_role, Weight: 0	After updating existing content of type <i>Responsive Email</i>	Custom	<a href="#">edit</a> <a href="#">disable</a> <a href="#">clone</a> <a href="#">delete</a> <a href="#">export</a>

## Inactive rules

Name	Event	Status	Operations
There are no inactive rules.			

# Rules: send email

## Events

### Event

After saving new content of type *Responsive Email*

### Operations

[delete](#)

[Add event](#)

## Conditions

[Show row weights](#)

### Elements

### Operations

[+](#) [Content is of type](#)

Parameter: *Content*: [node], *Content types*: Responsive Email

[edit](#) [delete](#)

[Add condition](#) [Add or](#) [Add and](#)

## Actions

[Show row weights](#)

### Elements

### Operations

[+](#) [Views loop: Member Info - Rules](#)

Row variables: User: Name (name), User: E-mail (mail)

[edit](#) [view](#) [display](#) [edit](#) [delete](#) [Add view loop](#) [Add action](#) [Add loop](#)

[+](#) [Send mail](#)

Parameter: *To*: [mail:value], *Subject*: [node:title], *Message*: Dear [name:value], ...

[edit](#) [delete](#)

[Add view loop](#) [Add action](#) [Add loop](#)

[Settings](#)

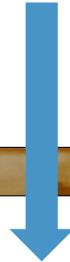
# Rules: send email :: add view loop

## Views iterator display \*

- Select - ▼

Select the view display to use for looping. To add a display to the list, add a "Rules" display to a view.

Continue



## Views iterator display \*

- Select - ▼

- Select -

**Member Info**

Rules

play to use for looping. To add a display to the list, add a "Rules" display to a view.

# Rules: send email :: add view loop

## Row variables

Adjust the names and labels of row variables (from the view) available in each iteration of the view loop, but note that renaming of already utilized variables invalidates the existing uses.

User: Name

### Variable label \*

### Variable name \*

The variable name must contain only lowercase letters, numbers, and underscores and must be unique in the current scope.

User: E-mail

### Variable label \*

### Variable name \*

The variable name must contain only lowercase letters, numbers, and underscores and must be unique in the current scope.

# Views Rules Connections



## Row variables

Adjust the names and labels of row variables (from the view) available in each iteration of the view loop, but note that renaming existing uses.

User: Name

### Variable label \*

User: Name

### Variable name \*

name

The variable name must contain only lowercase letters, numbers, and underscores and must be unique in the current scope.

### Fields

Add

User: Name

User: E-mail

User: E-mail

### Variable label \*

User: E-mail

### Variable name \*

mail

The variable name must contain only lowercase letters, numbers, and underscores and must be unique in the current scope.

# Views Rules Connections

Member Info (User)

Rules: row variables

Configure the variable info for each field as they would be used in Rules.

User: Name

Enabled  
Uncheck this box to make this variable unavailable for use in Rules.

Use rendered result  
Check to use rendered value (e.g. rewritten) instead of the raw value. Note that a rendered field may contain markup but is not affected by the field's "Style settings".

Data type	Label	Name
Text	User: Name	name

User: E-mail

Enabled  
Uncheck this box to make this variable unavailable for use in Rules.

Use rendered result  
Check to use rendered value (e.g. rewritten) instead of the raw value. Note that a rendered field may contain markup but is not affected by the field's "Style settings".

Data type	Label	Name
Text	User: E-mail	mail

Apply Cancel

Caching: none

view name/description

clone Rules

ers Add

avior Add

style: Basic | Settings

: views\_rules\_1

comment

al links: No

on: No

: Settings

e:

language



# Rules: send email :: add view loop ::: add action

Select the *action* to add

Add a variable

Continue

Send HTML e-mail  
Send HTML mail to all users of a role  
Send mail  
Send mail to all users of a role  
Set breadcrumb  
Show a message on the site

**User**

Add user role  
Block a user  
Remove user role  
Send account e-mail

Add a variable

Continue

Send HTML mail to all users of a role  
Send mail  
Send mail to all users of a role  
Set breadcrumb  
Show a message on the site

**User**

Add user role

Add a variable

Continue

# Rules: send email ::

Token Replacement in Send mail to all users of a role

To
The e-mail address or address
<b>Value *</b>
[mail:value]

Subject
The mail's subject.
<b>Value *</b>
[node:title]

Message
The mail's message body.
<b>Value *</b>
Dear [name:value],
[node:body]

# Views Rules Display configuration



# Views: add new view



2015

Home » Administration » Structure » Views

## Add new view ⊕

**LIST** **SETTINGS**

**View name \***  
User Interests Machine name: user\_interests [\[Edit\]](#)

**Description**

**Show** Content **of type** All **tagged with**  **sorted by** Newest first

**Content**  
Content  
Taxonomy terms  
Files  
Content revisions  
**Users**  
Partners  
Module/Theme/Theme engine  
User profiles  
Rules configuration

**Path**  
<http://devmirror.info/govcon-2015-2/> user-interests

**Display format**  
Unformatted list **of** teasers **with links (allow users to add comments, etc.)** without comments

**Items to display**  
10

Use a pager

Create a menu link

Include an RSS feed

**Create a block**



# Views: Rules Display



2015

Home » Administration » Structure » Views

## User Interests (User) o

✓ The view *User Interests* has been saved.

Modify the display(s) of your view below or add new displays.

### Displays

Page edit view name/description ▾

- + Add
- Attachment
- ▼ Page display
- Block
- Date browser
- Entity Reference
- Feed
- Page
- Rules

Display name: view Page ▾

<p><b>TITLE</b></p> <p>Title: User Interests</p> <p><b>FORMAT</b></p> <p>Format: Unformatted list   Settings</p> <p>Show: Fields   Settings</p> <p><b>FIELDS</b> <span style="float: right;">Add ▾</span></p> <p>User: Name</p> <p>User: E-mail (E-mail)</p> <p>User: Interests (Interests)</p> <p><b>FILTER CRITERIA</b> <span style="float: right;">Add ▾</span></p> <p>User: Active (Yes)</p> <p><b>SORT CRITERIA</b> <span style="float: right;">Add ▾</span></p>	<p><b>PAGE SETTINGS</b></p> <p>Path: /user-interests</p> <p>Menu: No menu</p> <p>Access: Permission   View user profiles</p> <p><b>HEADER</b> <span style="float: right;">Add</span></p> <p><b>FOOTER</b> <span style="float: right;">Add</span></p> <p><b>PAGER</b></p> <p>Use pager: Full   Paged, 10 items</p> <p>More link: No</p>	<p><b>Advanced</b></p> <p><b>CONTEXTUAL FILTERS</b> <span style="float: right;">Add</span></p> <p><b>RELATIONSHIPS</b> <span style="float: right;">Add</span></p> <p><b>NO RESULTS BEHAVIOR</b> <span style="float: right;">Add</span></p> <p><b>EXPOSED FORM</b></p> <p>Exposed form in block: No</p> <p>Exposed form style: Basic   Settings</p> <p><b>OTHER</b></p> <p>Machine Name: page</p> <p>Comment: No comment</p> <p>Use AJAX: No</p>
---	--	---

You do not need to define a Page display if you only need the view for the purpose of exposing data to rules.



# Views: Configuration

**Configure filter criterion: User: Interests (field\_interests)**

For: All displays

Appears in: user:user.

Expose this filter to visitors, to allow them to change it

**Operator**

Select terms from vocabulary **User Interests**

Is one of

Is all of

Is none of

Is empty (NULL)

Is not empty (NOT NULL)

Reduce duplicates

This filter can cause items that have more than one of the selected options to appear as duplicate results. If this filter causes duplicate results to occur, this checkbox can reduce those duplicates; however, the more terms it has to search for, the less performant the query will be, so use this with caution. Shouldn't be set on single-value fields, as it may cause values to disappear from display, if used on an incompatible field.

[MORE](#)

Auto preview

Home » Administration » Structure » Views

## User Interests (User)

Modify the display(s) of your view below or add new displays.

### Displays

[edit view name/description](#)

#### Page details

Display name: Page [view Page](#)

<b>TITLE</b> Title: User Interests	<b>PAGE SETTINGS</b> Path: /user-interests Menu: No menu Access: Permission   View user profiles	<b>Advanced</b>
<b>FORMAT</b> Format: Unformatted list   Settings Show: Fields   Settings	<b>HEADER</b> <input type="button" value="Add"/> <b>FOOTER</b> <input type="button" value="Add"/>	<b>CONTEXTUAL FILTERS</b> <input type="button" value="Add"/>
<b>FIELDS</b> <input type="button" value="Add"/>	<b>PAGER</b> Use pager: Full   Paged, 10 items More link: No	<b>RELATIONSHIPS</b> <input type="button" value="Add"/>
<b>FILTER CRITERIA</b> <input type="button" value="Add"/>	<b>SORT CRITERIA</b> <input type="button" value="Add"/>	<b>NO RESULTS BEHAVIOR</b> <input type="button" value="Add"/>
<b>USER: ACTIVE (YES)</b> User: Active (Yes) User: Roles (= Gallery Member)		<b>EXPOSED FORM</b> Exposed form in block: No Exposed form style: Basic   Settings
<b>USER: ROLES (= GALLERY MEMBER)</b> User: Roles (= Gallery Member)		<b>OTHER</b> Machine Name: page Comment: No comment Use AJAX: No Hide attachments in summary: No Hide contextual links: No Use aggregation: No Query settings: Settings Field Language: Current user's language Caching: None CSS class: None Theme: Information

Auto preview    
Separate contextual filter values with a "|". For example, 40/12/10.

Title: User Interests

Content: jack  
E-mail: trudesaconoj@devmirror.info.invalid  
Interests: Featured

peter  
E-mail: jespomewes@devmirror.info.invalid  
Interests: Featured

# Views: Configuration

**Rules: Select which pager, if any, to use for this view** ✕

Display a specified number of items

Display all items

You may also adjust the [settings](#) for the currently selected pager.

Apply Cancel

Exposed form style: Basic | Settings

Items to display: Display a specified number of items  
| 10 items

**OTHER**

Machine Name: views\_rules\_1

Set the Pager to “Show all items”.  
The rule needs all the information  
- paging will cause the rule not to email  
all of the matched users.

# Rules ::: row variables

Page\* Rules\* + Add

Rules details

Display name: Rules

TITLE

Title: User Interests

FORMAT

Format: Unformatted list | S

Show: Fields | Settings

FIELDS

User: Name

User: E-mail (Email)

User: Interests

FILTER CRITERIA

User: Active (Yes)

User: Roles (= Gallery Membe

User: Interests | Settings

SORT CRITERIA

User: Created date (desc)

### Rules: row variables

Enabled  
Uncheck this box to make this variable unavailable for use in Rules.

Use rendered result  
Check to use rendered value (e.g. rewritten) instead of the raw value. Note that a rendered field may contain markup but is not affected by the field's "Style settings".

Data type	Label	Name
- None -	User: Name	name

**EMAIL**

Enabled  
Uncheck this box to make this variable unavailable for use in Rules.

Use rendered result  
Check to use rendered value (e.g. rewritten) instead of the raw value. Note that a rendered field may contain markup but is not affected by the field's "Style settings".

Data type	Label	Name
- None -	Email	mail

**USER: INTERESTS**

Enabled

Apply Cancel

Row variables in display "Rules" are not correctly configured.



# Rules ::: row variables

Rules: row variables
✕ New name/description

**USER: NAME**

**Enabled**  
Uncheck this box to make this variable unavailable for use in Rules.

**Use rendered result**  
Check to use rendered value (e.g. rewritten) instead of the raw value. Note that a rendered field may contain markup but is not affected by the field's "Style settings".

Data type	Label	Name
- None -	User: Name	name
- None -		
Date		
Decimal number		
Duration		
Flag		
Formatted text		
IP Address		
Integer		
<b>Text</b>		
Text token		
Truth value		
URI		
Watchdog log entry		
<b>Entity</b>		
Any entity		
File		
Flagging		
Node		
Rules configuration		
Taxonomy term		
...		

Apply
Cancel

✕ Row variables in display "Rules" are not correctly configured.

Page\* Rules\* + Add

Rules details

Display name: Rules

TITLE

Title: User Interests

FORMAT

Format: Unformatted list | 5

Show: Fields | Settings

FIELDS

User: Name

User: E-mail (Email)

User: Interests

FILTER CRITERIA

User: Active (Yes)

User: Roles (= Gallery Member)

User: Interests | Settings

SORT CRITERIA

User: Created date (desc)

clone Rules

Add

Add

Add

Settings

s\_1

ser's language

# Rules ::: row variables

If the field has a label,  
the label will auto-populate

If the field does not have a label,  
the fieldname will auto-populate

The screenshot shows a 'Rules details' dialog box with a sidebar on the left and a main content area. The sidebar lists various rule categories: Rules details, TITLE, FORMAT, FIELDS, FILTER CRITERIA, and SORT CRITERIA. The main content area is titled 'Rules: row variables' and contains three sections, each with a table for field configuration and a set of checkboxes for 'Enabled' and 'Use rendered result'.

**Rules: row variables**

Data type	Label	Name
Text	User: Name	name

**EMAIL**

Enabled  
Uncheck this box to make this variable unavailable for use in Rules.

Use rendered result  
Check to use rendered value (e.g. rewritten) instead of the raw value. Note that a rendered field may contain markup but is not affected by the field's "Style settings".

Data type	Label	Name
Text	Email	mail

**USER: INTERESTS**

Enabled  
Uncheck this box to make this variable unavailable for use in Rules.

Use rendered result  
Check to use rendered value (e.g. rewritten) instead of the raw value. Note that a rendered field may contain markup but is not affected by the field's "Style settings".

Data type	Label	Name
Text	User: Interests	field_interests

Apply Cancel

Onaje Johnston  
Senior Developer  
ojohnston@forumone.com  
www.forumone.com

Leanne Duca  
Educator  
leanneduca@me.com

# THANK YOU!



2015

