ECA in GovCMS? Yes please!

Modules

1. ECA - https://www.drupal.org/project/eca
2. BPMN.iO - https://www.drupal.org/project/bpmn_io
3. ECA Classic Modeller - https://www.drupal.org/project/eca_cm

Stable releases for these projects are covered by the security advisory policy.

New Permissions

1. Edit BPMN.iO diagrams
2. Administer ECA configuration

Configuration

1. General settings: eca.settings.yml
2. eca.eca.<model machine name>.yml

Potential Actions that have security implications

1. Events:
   a. Import config
      i. Might impact deployments? Testing required.
   b. Set current user
      i. Any event around setting users should be tested.
2. Conditions:
   a. None, as these are simply checks not actions
3. Actions:

      a. Set access result (ECA Access)
          i. May provide the ability to bypass access checks
      b. User: switch current account (ECA User)
          i. Ability to switch to SuperAdmin role

Potential implementations

If we limit users to the less user-friendly modeller of "ECA Classic Modeller" then a series of hook_form_alters in the GovCMS Security Modules can be used to unset specific unwanted values.

If users are allowed the BPMN.iO modeller, form_alters are not possible, due to the BPMN.iO editor not being inside Drupal, instead, in order to limit their ECA actions, we will need to audit their exported YML files.

Meaning, that in order to allow the BPMN.iO modeller, the site MUST have Config Import enabled. Since we can't force Config Import to be enabled for all sites, it may be that we don't allow the BPMN.iO modeller in the first instance.

However, providing ECA with the Classic Modeller will still provide additional functionality, even if the user experience isn't "the best" it could be.

All Events, Conditions and Actions

All Events:
- Determining entity access (ECA Access)
- Determining entity create access (ECA Access)
- Determining entity field access (ECA Access)
- ECA cron event (ECA Base)
- ECA custom event (ECA Base)
- Collect information on all config collections (ECA Config)
- Delete config (ECA Config)
- Import config (ECA Config)
- Import config but content missing (ECA Config)
- Import config validation (ECA Config)
- Rename config (ECA Config)
- Save config (ECA Config)
- Delete content entity (ECA Content)
- Delete content entity bundle (ECA Content)
- Delete content entity revision (ECA Content)
- Delete content entity translation (ECA Content)
- ECA custom event (entity-aware) (ECA Content)
- Entity reference field selection (ECA Content)

- Init content entity field values (ECA Content)
- Initialize content entity (ECA Content)
- Initialize content entity bundle (ECA Content)
- Initialize content entity revision (ECA Content)
- Initialize content entity translation (ECA Content)
- Insert content entity (ECA Content)
- Insert content entity translation (ECA Content)
- Load content entity (ECA Content)
- Load content entity from storage (ECA Content)
- Options field selection (ECA Content)
- Predelete content entity (ECA Content)
- Preload content entity (ECA Content)
- Prepare content entity form (ECA Content)
- Prepare content entity view (ECA Content)
- Presave content entity (ECA Content)
- Update content entity (ECA Content)
- View content entity (ECA Content)
- ECA Endpoint access (ECA Endpoint)
- ECA Endpoint response (ECA Endpoint)
- After build form (ECA Form)
- Build form (ECA Form)
- Process form (ECA Form)
- Submit form (ECA Form)
- Validate form (ECA Form)
- Log message created (ECA Log)
- Deleting migration row (ECA Migrate)
- Migration import finished (ECA Migrate)
- Migration import started (ECA Migrate)
- Migration rollback finished (ECA Migrate)
- Migration rollback started (ECA Migrate)
- Migration row deleted (ECA Migrate)
- Migration row saved (ECA Migrate)
- Remove entry from migration map (ECA Migrate)
- Save message to ID map (ECA Migrate)
- Save to migration map (ECA Migrate)
- Saving migration row (ECA Migrate)
- Allow new routes (ECA Miscellaneous)
- Alter route (ECA Miscellaneous)
- Block content get dependency (ECA Miscellaneous)
- Build render array (ECA Miscellaneous)
- Controller arguments have been resolved (ECA Miscellaneous)
- Controller does not return a Response instance (ECA Miscellaneous)
- Controller found to handle request (ECA Miscellaneous)
- Prepare layout builder element (ECA Miscellaneous)
- Response created (ECA Miscellaneous)
- Response for request created (ECA Miscellaneous)
- Response was sent (ECA Miscellaneous)
- Route building finished (ECA Miscellaneous)

- Sanitize file name (ECA Miscellaneous)
- Select page display mode (ECA Miscellaneous)
- Service container finished initializing (ECA Miscellaneous)
- Start dispatching request (ECA Miscellaneous)
- Uncaught exception (ECA Miscellaneous)
- ECA processing queued task (ECA Queue)
- ECA Block (ECA Render)
- ECA Extra field (ECA Render)
- ECA Views field (ECA Render)
- ECA contextual links (ECA Render)
- ECA entity operation links (ECA Render)
- ECA lazy element (ECA Render)
- Cancelling a user (ECA User)
- Flood blocked IP (ECA User)
- Flood blocked user (ECA User)
- Login of a user (ECA User)
- Logout of a user (ECA User)
- Set current user (ECA User)
- Workflow: state transition (ECA Workflow)

All Conditions:
- Compare number of list items (ECA Base)
- Compare two scalar values (ECA Base)
- Persistent state: compare (ECA Base)
- Token: exists (ECA Base)
- Entity: compare field value (ECA Content)
- Entity: exists (ECA Content)
- Entity: field is accessible (ECA Content)
- Entity: field value changed (ECA Content)
- Entity: field value is empty (ECA Content)
- Entity: is accessible (ECA Content)
- Entity: is new (ECA Content)
- Entity: original has field value (ECA Content)
- Entity form: compare display mode (ECA Content)
- Entity type and bundle (ECA Content)
- Entity form: compare operation (ECA Form)
- Form: compare triggered submission (ECA Form)
- Form: has any errors (ECA Form)
- Form: is submitted (ECA Form)
- Form field: compare submitted value (ECA Form)
- Form field: exists (ECA Form)
- Route match (ECA Miscellaneous)
- Current user ID (ECA User)
- Current user has permission (ECA User)
- ID of user (ECA User)
- Role of current user (ECA User)
- Role of user (ECA User)
- User has permission (ECA User)

All Actions:

- Display a message to the user (Drupal core)
- Publish URL alias (Drupal core)
- Publish content block (Drupal core)
- Publish content item (Drupal core)
- Publish custom menu link (Drupal core)
- Publish media item (Drupal core)
- Publish taxonomy term (Drupal core)
- Redirect to URL (Drupal core)
- Send email (Drupal core)
- Unpublish URL alias (Drupal core)
- Unpublish content block (Drupal core)
- Unpublish content item (Drupal core)
- Unpublish custom menu link (Drupal core)
- Unpublish media item (Drupal core)
- Unpublish taxonomy term (Drupal core)
- Set access result (ECA Access)
- Chain action for AND condition (ECA Base)
- Display an error message to the user (ECA Base)
- Display a warning message to the user (ECA Base)
- List: add item (ECA Base)
- List: count items (ECA Base)
- List: delete data (ECA Base)
- List: remove item (ECA Base)
- List: save data (ECA Base)
- Lock: acquire (ECA Base)
- Persistent state: read (ECA Base)
- Persistent state: write (ECA Base)
- Set ECA log level (ECA Base)
- Token: set context (ECA Base)
- Token: set value (ECA Base)
- Translate (ECA Base)
- Trigger a custom event (ECA Base)
- Cache: invalidate (ECA Cache)
- Cache: read (ECA Cache)
- Cache: write (ECA Cache)
- Config: read (ECA Config)
- Config: write (ECA Config)
- Entity: create new (ECA Content)
- Entity: delete (ECA Content)
- Entity: get field value (ECA Content)
- Entity: load (ECA Content)
- Entity: load via reference (ECA Content)
- Entity: save (ECA Content)
- Entity: set field value (ECA Content)
- Entity: set form display (ECA Content)
- Entity: set new revision (ECA Content)

- List: add entity (ECA Content)
- List: remove entity (ECA Content)
- Trigger a custom event (entity-aware) (ECA Content)
- Pre-configured: Add the Content Approver role to the selected user(s) (ECA Core)
- Pre-configured: Add the Content Author role to the selected user(s) (ECA Core)
- Pre-configured: Add the Site Administrator role to the selected user(s) (ECA Core)
- Pre-configured: Block the selected user(s) (ECA Core)
- Pre-configured: Make content sticky (ECA Core)
- Pre-configured: Make content unsticky (ECA Core)
- Pre-configured: Promote content to front page (ECA Core)
- Pre-configured: Publish content (ECA Core)
- Pre-configured: Publish media (ECA Core)
- Pre-configured: Publish taxonomy term (ECA Core)
- Pre-configured: Remove content from front page (ECA Core)
- Pre-configured: Remove the Content Approver role from the selected user(s) (ECA Core)
- Pre-configured: Remove the Content Author role from the selected user(s) (ECA Core)
- Pre-configured: Remove the Site Administrator role from the selected user(s) (ECA Core)
- Pre-configured: Save content (ECA Core)
- Pre-configured: Save media (ECA Core)
- Pre-configured: Unblock the selected user(s) (ECA Core)
- Pre-configured: Unpublish content (ECA Core)
- Pre-configured: Unpublish media (ECA Core)
- Pre-configured: Unpublish taxonomy term (ECA Core)
- Pre-configured: Update URL alias (ECA Core)
- Pre-configured: Update URL alias (ECA Core)
- Request: Get URL query parameter (ECA Endpoint)
- Request: Get client IP (ECA Endpoint)
- Request: Get content (ECA Endpoint)
- Request: Get content type (ECA Endpoint)
- Request: Get header (ECA Endpoint)
- Request: Get method (ECA Endpoint)
- Request: Get path argument (ECA Endpoint)
- Request: Get uri (ECA Endpoint)
- Response: set content (ECA Endpoint)
- Response: set content type (ECA Endpoint)
- Response: set expires (ECA Endpoint)
- Response: set headers (ECA Endpoint)
- Response: set max age (ECA Endpoint)
- Response: set status code (ECA Endpoint)
- Entity form: build entity (ECA Form)
- Form: add Ajax handler (ECA Form)
- Form: add container element (ECA Form)
- Form: add grouping element (ECA Form)
- Form: add hidden field (ECA Form)
- Form: add options field (ECA Form)

- Form: add submit button (ECA Form)
- Form: add text field (ECA Form)
- Form: get errors (ECA Form)
- Form: set action (ECA Form)
- Form: set method (ECA Form)
- Form field: get submitted value (ECA Form)
- Form field: set access (ECA Form)
- Form field: set as disabled (ECA Form)
- Form field: set as required (ECA Form)
- Form field: set default value (ECA Form)
- Form field: set options (ECA Form)
- Form field: set submitted value (ECA Form)
- Form field: set validation error (ECA Form)
- Form state: get property value (ECA Form)
- Form state: set property value (ECA Form)
- Form state: set rebuild (ECA Form)
- Form state: set redirect (ECA Form)
- Log Message (ECA Log)
- Token: load route parameter (ECA Miscellaneous)
- Enqueue a task (ECA Queue)
- Enqueue a task with a delay (ECA Queue)
- Get active theme (ECA Render)
- Render: HTML details (ECA Render)
- Render: Twig (ECA Render)
- Render: Views (ECA Render)
- Render: build (ECA Render)
- Render: cacheability (ECA Render)
- Render: custom form (ECA Render)
- Render: dropbutton (ECA Render)
- Render: entity form (ECA Render)
- Render: file contents (ECA Render)
- Render: image (ECA Render)
- Render: lazy element (ECA Render)
- Render: link (ECA Render)
- Render: markup (ECA Render)
- Render: set weight (ECA Render)
- Render: text (ECA Render)
- Render: view entity (ECA Render)
- Render: view field (ECA Render)
- Set active theme (ECA Render)
- Current user: load (ECA User)
- User: switch current account (ECA User)
- Views: Execute query (ECA Views)
- Views: Export query into file (ECA Views)
- Entity workflow Editorial: transition (ECA Workflow)
- Change the author of content (Node)
- Demote selected content from front page (Node)
- Make selected content not sticky (Node)

- Make selected content sticky (Node)
- Promote selected content to front page (Node)
- Unpublish content containing keyword(s) (Node)
- Update URL alias of an entity (Pathauto)
- Add a role to the selected users (User)
- Block the selected users (User)
- Remove a role from the selected users (User)
- Unblock the selected users (User)