OpenACS/EuroTcl 2023

OpenACS 5.10.1

Antonio Pisano

Héctor Romojaro Gómez

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What's new on 5.10.1 – New packages

- openacs-bootstrap5 (bootstrap 3 and 4 are EOL since 2019 and 2022 respectively)
- bootstrap-icons
  - Open source icon library with over 1,600 icons
  - Usable with or without bootstrap in any project
- fa-icons
  - Open source icon library with over 2,000 icons
  - As of 2020, Font Awesome was used by 38% of sites that use third-party font scripts, placing Font Awesome in second place after Google Fonts
- highcharts
  - JavaScript and TypeScript package for producing data visualizations (line/bar/pie charts etc.)
  - The OpenACS package offers support to load this library either via CDN or from a local installation (via acs-admin and global administration UI)

What's new on 5.10.1 - Security

- Stronger password hashes
    - SCRAM-SHA-256
    - Requires NaviServer from Sept 28, 2021 or newer
    - Configured via *PasswordHashAlgorithm* parameter, SALTED–SHA1 still default

- MIME type optional CSP rules
    - Config parameter StaticCSP in the section *ns/server/$server/acs* to deactivate execution of script files from static content.

```
ns_param StaticCSP {

    image/svg+xml "script-src 'none'"
}
```

What's new on 5.10.1 - Security

- Cookie namespaces

  - If multiple OpenACS instances are served from the same domain name, the same cookies (e.g. $ad\_session\_id$, ad_login, ...) are set to all servers

  - For sensible cases, a cookie-namespace can be used, which can be used as a replacement of the traditional $ad\_$ prefix. This can be as well set in the section $ns/server/\$server/acs$ of the OpenACS configuration file:

```
ns_param CookieNamespace "ad_"
```

What's new on 5.10.1 - Templating

- Client-side double click prevention via CSS class
    - CSS class *prevent-double-click*
    - The double click prevention deactivates a button or an anchor element after clicking for a short time (per default for 1s) and ignores in this time window further clicks
    - The time window can be specified via the data element *oacs-timeout*
    - When a double click occurs, the duplicate click is determined at the client side (in the browser) such that the first request will continue to run and will render its result when finished.
    - Without double-click prevention (or with the double-click-prevention on the server side), the results of the first request are lost for the client, although these are still computed at the server side

```
<a class="prevent-double-click" data-oacs-timeout="2000" href="/slow.tcl?
t=10s">link</a>

<form action="/slow.tcl">
    <input class="btn  prevent-double-click" data-oacs-timeout="2000"
type="submit" value="Submit"> ...
</form>
```

What's new on 5.10.1 - Templating

- Support for generic icon names, which can be mapped differently depending on the installed packages and themes

  - `<adp:icon name="NAME" title=...>`

  - One can use font-based icons (like e.g. glyphicons of Bootstrap5, bootstrap-icons, fa-icons, ...) instead of the old-style .gif and .png images

  - This makes the appearance more uniform, has better resizing behavior, and works more efficiently (fewer requests for embedded resources).

  - Most of the occurrences of the old-style images in standard core and non-core packages in the oacs-5-10 branch are already replaced.bootstrap-icons

- Support for listing registered URNs

What's new on 5.10.1 – Clustering

- Support for dynamic cluster nodes
  - Previous versions of OpenACS required to know the IP addresses of the cluster nodes in advance, which is a show-stopper for many cloud applications
  - Now arbitrary nodes can be registered as client nodes at the canonical server, provided that these know a shared secret
  - All messages of the intra-cluster talk are now cryptographically signed using this shared secret.
  - In the current version, the shared secret key has to be specified in the NaviServer configuration file (*ClusterSecret*). Later versions will support the use of other measures such as generated keys, kept as files.
  - Static peer addresses still possible
  - HTTPS can be used for intra-cluster talk, other protocols might be added later (e.g. UDP)
  - Nodes (such as the canonical server) can be specified via URL locations
  - Support for cluster communication statistics (requires xotcl-request-monitor)

What's new on 5.10.1 – Clustering

- Configuration
    - Kernel parameters

      ```
      CanonicalServer        : https://openacs.org
      PreferredLocationRegexp : https://
      ClusterEnabledP        : 1
      EnableLoggingP         : 1
      ```

    - Config file

      ```
      ns_section ns/server/$server/acs {
          # ...
          ns_param ClusterSecret "please change me"
      }
      ```

What's new on 5.10.1 – Clustering

- Munin statistics

  1) install munin plugins for naviserver (*munin-plugins-ns.git*)

  2) add link to the munin plugins (replace "openacs" by the name of your server in the munin configuration) */etc/munin/plugins/naviserver_openacs_count_cluster* -> */usr/share/munin/plugins/naviserver_count*

  3) in the plugin plugin configuration (e.g., */etc/munin/plugin-conf.d/naviserver*) add a section like the following (again, replace "openacs" by the server name you used)

  ```
  [naviserver_openacs_count_cluster]
          env.title Cluster
          env.vars cluster:broadcast cluster:sent cluster:received
  ```

  4) Restart munin. Previous versions of OpenACS required to know the IP addresses of the cluster nodes in advance, which is a show-stopper for many cloud applications

What's new on 5.10.1 – Clustering

What's new on 5.10.1 – Versions

- Support for fresh installations on Oracle 19c
- Requirements
  - Tcl 8.6.2
  - XOTcl 2.1
  - PostgreSQL 11 (PostgreSQL 10 EOL: November 22)
  - TDOM 0.9
  - NaviServer (drop AOLserver support, as it cannot be compiled with the required modules with recent Tcl versions)

What's new on 5.10.1 – What else?

- Some functionality from xotcl-core was moved to acs-tcl
  - Partitioned caches, key-partitioned caches, per-request caches, per-thread caches
  - Unified (and much faster) access to stored procedures/functions
- Cleanup
- Refactoring
- Modernization
- Performance
- Many other improvements (changelog > 16K lines)
- Dramatic increment of the public API Test coverage

Core test coverage

5.10

29.60%

5.10.1

51.59%
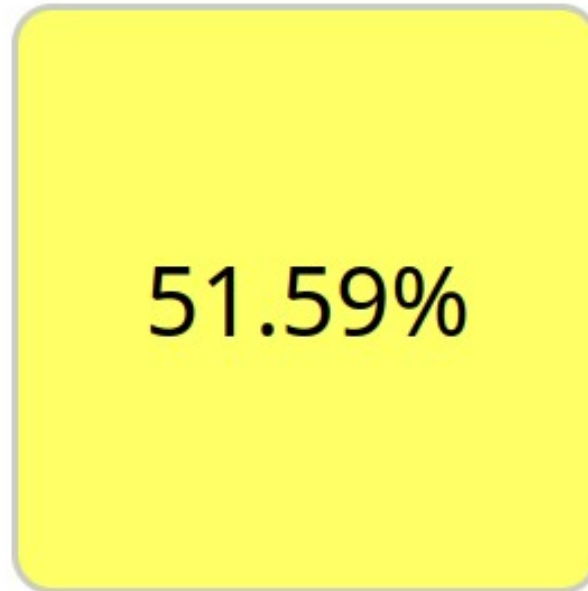
Core test coverage by package

	5.10	5.10.1
Package key	**Test coverage**	**Test coverage**
acs-admin	100.00%	100.00%
acs-api-browser	92.86%	100.00%
acs-authentication	68.97%	98.28%
acs-automated-testing	43.33%	63.16%
acs-bootstrap-installer	53.33%	100.00%
acs-content-repository	30.00%	31.95%
acs-core-docs	100.00%	100.00%
acs-developer-support	88.24%	88.24%
acs-kernel	100.00%	100.00%
acs-lang	50.67%	100.00%
acs-mail-lite	75.00%	100.00%
acs-messaging	20.00%	33.33%
acs-reference	100.00%	100.00%
acs-service-contract	26.32%	100.00%
acs-subsite	28.91%	50.39%
acs-tcl	29.89%	49.87%
acs-templating	12.53%	26.23%
acs-translations	100.00%	100.00%
notifications	0.00%	100.00%
openacs-default-theme	100.00%	100.00%
ref-countries	100.00%	100.00%
ref-language	100.00%	100.00%
ref-timezones	100.00%	100.00%
search	0.00%	100.00%
Totals:	**29.60%**	**51.59%**

- 16/24 packages from the Core are fully covered (9/24 on 5.10)

- notifications 0% → 100%

- acs-service-contract 26,32% → 100%

- acs-bootstrap-installer 53,33% → 100%

- acs-lang 50,67 → 100%

- search 0% → 100%

Diffstat

	5.9.0	5.9.1	5.10.0	5.10.1
Release date	December 2015	August 2017	September 2021	July 2023 (probably)
Files changed	3,658	3,548	3,445	2,886
Insertions(+)	120,800	113,292	215,464	197,060
Deletions(-)	97,617	90,507	193,642	182,613

Contributors – Thanks everybody!

6 Committers

- Antonio Pisano
- Gustaf Neumann
- Günter Ernst
- Héctor Romojaro Gómez
- Raúl Rodríguez
- Thomas Renner

7 Patch/bugfix providers

- Felix Mödritscher
- Frank Bergmann
- Franz Penz
- Markus Moser
- Marty Israelsen
- Monika Andergassen
- Sebastian Scheder

Thanks for watching

- Release notes: https://openacs.org/doc/release-notes

- Tarballs: https://openacs.org/projects/openacs/download/

- Fisheye: https://fisheye.openacs.org/changelog/OpenACS

- Github Mirror: https://github.com/openacs/