Collaboration Program for Scripted Gallery 2 Installers

As an alternative to the official Gallery 2 Installation wizard there are providers of scripted and automated Gallery 2 installation tools.

The **goal** of the *Collaboration Program for Scripted Gallery 2 Installers* is to improve customer satisfaction by solving common challenges of scripted Gallery 2 installation tools.

As a provider of Gallery 2 installation products **you** are asked to follow the specified recommendations and invited to cooperate with the Gallery Project and other installation tool providers to work towards the declared goal.

1   The Nature of Scripted Gallery 2 Installers

DEF 1   **Scripted Gallery 2 Installation**

"A scripted Gallery 2 installer allows the installation of Gallery 2 with limited or no user interaction."

The **typical properties** of scripted Gallery 2 installers are:

- **Easier and faster** installation of Gallery 2, often with a single mouse-click or a single step with fewer input fields.

- **Hiding complexity** by offering no or very few customer-facing configuration options.

- **Pre-configuration** of the database connection information, the storage folder and other data is usually making the above possible.

The **typical problems** with scripted Gallery 2 installers are:

- Often there is **no upgrade path** provided.

- Versions are often **out of date** and new releases and more importantly **security** patch releases are offered with a large delay after the official Gallery 2 releases.

- **Unclear escalation path** and **lack of documentation** in case support is needed.

2   Recommendations

The following recommendations are key to customer satisfaction throughout the life-cycle of a Gallery 2 installation and are direct consequences of the previously identified problems.

2.1   Keep It Up To Date

Gallery 2 is actively developed. There are major releases every year and important security patch releases can be announced any day. It is imperative to **protect customers** by providing the latest stable release with your scripted Gallery 2 installer ideally as a co-launch with the official Gallery 2 releases. Furthermore, **customers clearly prefer the latest release** of Gallery 2 over obsolete versions that are available through some automated installation tools.

To help you keeping your scripted Gallery 2 installer up to date with the latest stable Gallery 2 release, we highly recommend the following actions.

☞ **RECOMMENDATION:** Subscribe to the gallery-announce mailing list (http://codex.gallery2.org/index.php/Mailing_Lists) to get notified about Gallery releases as they happen.

☞ **RECOMMENDATION:** Release a new version of your scripted Gallery 2 installer as soon as possible. You can start development and QA as early as the announcement of the first release candidate of a new Gallery 2 release.

2.2 Provide an Upgrade Path

The installation is just the start of the life-cycle of a Gallery 2 instance. Customers are either tempted by **new features** or forced due to **security patch releases** to keep their own Gallery 2 installation up to date.

☞ **RECOMMENDATION: Inform the end-user** of the designed upgrade path. Do you offer an automated upgrade or should the user follow the official Gallery 2 upgrade instructions? Provide links to the *Gallery codex* (http://codex.gallery2.org), the home of the Gallery 2 documentation.

2.3 Plan for Support and Maintenance

When using your installation tool, a customer might be confused about some options or even worse, there could be an unexpected problem.

☞ **RECOMMENDATION:** Provide **inline documentation** and links to further information in user-facing interfaces.

Who should the customer contact if there is a problem with Gallery 2 or with its installation? Where to check for updates?

☞ **RECOMMENDATION:** Add **contact information** and explain who is providing what software component.

What changes compared to an official Gallery 2 release have been made? Who is responsible for the support and the maintenance? As a distributor of an adapted Gallery 2 release you have certain responsibilities. The Gallery Project cannot support an unknown product. Your redistributed Gallery 2 version is a black box for the Gallery community, unless it's open or clearly documented.

☞ **RECOMMENDATION:** Publicly **document and communicate your changes** compared to the official Gallery 2 release to the Gallery Project *or* document that you or a 3rd party is responsible for support and maintenance.

☞ **RECOMMENDATION: Provide an escalation path** in case the Gallery Support Team needs additional information or help when supporting customers of your redistributed Gallery 2 version.

2.4   Know the Official Installation and Upgrade Wizards

When offering a wrapper or a even a replacement for the official Gallery 2 installation and upgrade wizards, it is important to know the anatomy of these components and what common challenges have to be considered.

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WARNING: Timeouts and resource limits.

■   To combat the **PHP execution time limit**, Gallery 2 dynamically extends the limit during operation. Removing the time limit before control is given to Gallery code does not solve the problem since the limit is set multiple times in Gallery's installation, upgrade and API code overriding previous values.

■   Usually, there is a **webserver request time limit** (typically 1, 5 or 10 minutes). The Gallery installation and upgrade process can take longer than one, two minutes, depending on the server. After this limit, the PHP process is usually killed and the TCP/IP connection closed. To mitigate this limit, Gallery periodically sends a few bytes to the client until the long running operation is complete.

■   The same measure also helps to prevent **user-agent connection timeouts**. Periodically sending a few bytes keeps the connection alive.

■   And finally, the same measure also helps to **keep the customer from closing the connection** and thus killing the upgrade process. The few bytes that are periodically transmitted are in fact the building blocks of a progress bar that is displayed in the web browser. The user has thus an estimate of the remaining time and knows that it's working correctly.

■   Be prepared to allow for increased **resource usage** during Gallery 2 installation and upgrade processes.

⚠️

WARNING: Dynamic dependencies.

While the *System Checks* step of the installation and upgrade wizards checks for all necessary dependencies for the core module, each module can have additional requirements. A module might depend on a specific PHP extension (e.g. XML) or on some external applications.

If an installation works on one server, you cannot just replicate the application image on other servers without guaranteeing that the setup is truly identical.

Alternatively, by using the correct Gallery 2 API methods during your scripted installation you can guarantee that all dependencies are checked for dynamically at installation time as in the official wizards.

2.4.1   Upgrade Related Issues

While the above issues apply to both the installation and the upgrade process, the following issues are only related to upgrading Gallery 2.

⚠ **WARNING:** Customers can modify their application files.

Customers can install additional Gallery 2 modules and themes by uploading files to their modules/ and themes/ folder. Since Gallery 2.2, this is even easier - no FTP access is required anymore thanks to the *downloadable plugins* feature.

What that means for you is that when providing a customized upgrade path, you have to be aware that the customer might have deleted or added plugins. The official upgrade wizard tries to gracefully deactivate plugins if there is no new version available on the server.

⚠ **WARNING:** Be aware of **non-trivial changes between releases**!

The upgrade code of Gallery 2 can change the database schema, data in the storage directory and in the database can be transformed and the configuration file can be changed as well. Everything can change between releases and only running the official upgrade code guarantees correct behavior.

⚠ **WARNING:** Clear cached data.

■ After putting the new PHP code into place and before starting the upgrade process, you should clear the PHP opcode cache (Zend, eaccelerator, APC, etc) if appropriate.

■ The official Gallery 2 upgrade wizard clears the CacheMap database table before the core upgrade process since MySQL tends to have problems with this large table which could result in upgrade errors.

■ Also, Gallery's database and template caches should be cleared after the core module upgrade.

2.5   Provide Added Value

This is obvious and most providers get this right. A scripted or automated installer should provide added value over the standard installation wizard.

The above mentioned typical properties of scripted Gallery 2 installers are excellent examples of how added value can be achieved - Make the installation easier and faster by pre-configuration and hiding configuration that is rendered unnecessary for specific server environments.

3   Feedback and Collaboration

Please provide feedback! What problems did you face when developing a scripted Gallery 2 installer? How could the Gallery Project or other providers help to support you in developing and maintaining your Gallery 2 related products?

Would you welcome an official scripted installer for Gallery 2? And what kind of hooks could we provide to simplify your development?

4   Summary

- Keep your scripted installer up to date. Subscribe to the gallery-announce mailing list to get notified about new releases and strive to co-launch your solutions with the official Gallery 2 releases.

- Provide an upgrade path or clearly document that the official upgrade wizard should be used.

- Plan for support and maintenance. Provide an escalation path to the Gallery Support Team, document your changes and communicate the contact information and responsibilities to the end user.

- Know the official Gallery 2 installation and upgrade wizards and how they solve common challenges.

- Let us know how we can help you achieve the above mentioned goals.

5   List of Scripted Gallery 2 Installation Products

Providers of scripted installers for Gallery 2:

- 4PSA-Integrator - http://www.4psa.com/products/4psaintegrator.php

- CPSkins cPanel Auto-Installer and Plesk PSA-Installer - http://cpskins.com

- Fantastico De Luxe - http://netenberg.com/fantastico.php

- Installatron - http://www.installatron.com

- Plesk Application Vault / Application Pack - http://www.swsoft.com/plesk

Inhouse solutions:

- DreamHost - http://www.dreamhost.com/

- PowWeb - http://www.powweb.com

- Yahoo! - http://smallbusiness.yahoo.com/webhosting/

6   About Gallery

Gallery is an open source project with the goal to develop and support leading photo sharing web application solutions.

Website: http://gallery.menalto.com; Contact: gallery-devel@lists.sourceforge.net

Further information: http://codex.gallery2.org/index.php/Gallery:About