



# G11n Install interface and G11n bits install mngmt using IPS tags

**Jan Trejbal**

Solaris engineering team lead

Sun Microsystems



# Agenda

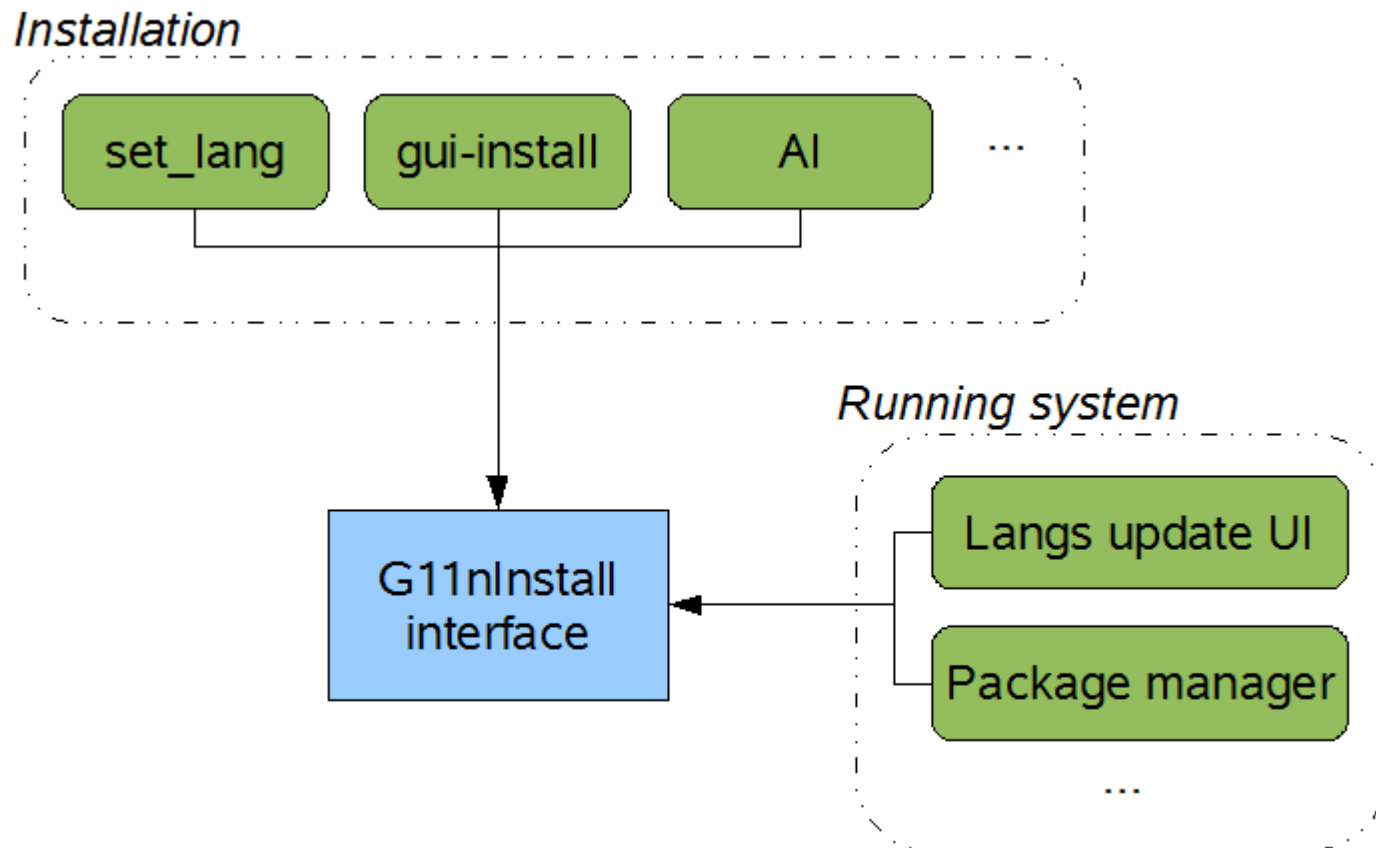
- G11n Install interface
- G11n bits install mngmt using IPS tags  
aka “Locale bits tagging”
- Plan / Roadmap
- Q&A and Call to Discussion

# Purpose of G1nInstall interface

- stand-alone library
- provide information about languages and locales available for/on the system, including packaging information

# G11nInstall interface

Overview and consumers:



# Implementation of G1nInstall interface

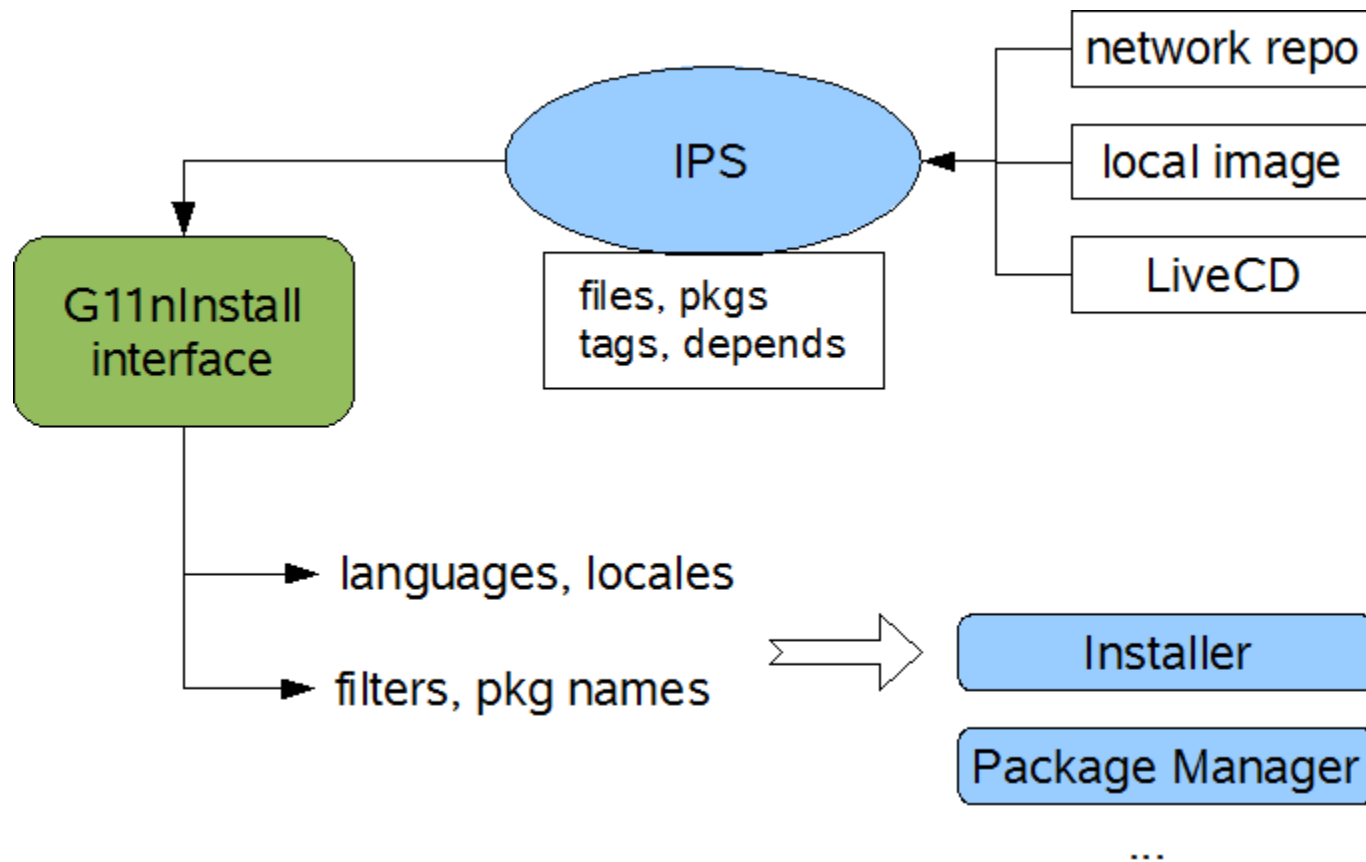
- Re-using orchestrator locale.c code:
  - > move locale.c out of orchestrator and create stand-alone G1nInstall shared library
  - > delete unused/old code
  - > introduce new functionality (packaging)
- I recently sent out proposal to caiman-discuss

# G11nInstall interface Services

```
/* Major functionality: */  
  get_install_langs_info()  
  get_langs_and_locales_info()  
  get_lang_package_names(lang(s))  
  get_locale_package_names(loc(s))  
  
/* Additional functionality: */  
  set_system_default_locale(loc)  
  set_language(lang)  
  is_posix_locale(loc)  
  is_unicode_locale(loc)
```

# Locale bits tagging

Overview:



# Orig. proposal on Locale bits tagging

- The same (G11nInstall) interface but Python based
- New implementation of G11n bits install mngmt:
  - > using IPS meta data: lang/terr/enc/msg/doc file tags
  - > use info from network repository (available langs/locs)
  - > utilize IPS filters
  - > handles G11n files as part of base pkg (e.g. SUNWa2ps)
- Problem: IPS does not yet support:
  - > retrieval of custom file tags from repository
  - > image-wide filters

# Plan / Roadmap (re-arranged)

1. Create G11nInstall interface by re-using locale.c  
(uses file system info: /usr/lib/locale/\*, locale\_map)  
Installer and other projects start using it
2. When IPS will support needed features, then  
Implement Locale bits tagging
3. Update implementation of G11nInstall interface  
(use IPS file tags)
4. Extend interface functionality, if requested  
by projects in future

# Q&A and Call to Discussion

- Q&A
- How does the plan/roadmap sound?
- Do your projects need to add more functionality to G11nInstall interface?  
2009.04 Dashboard - Related projects:
  - > G11n bits install mngmt using IPS tags
  - > Language/locale selection for live session via GRUB
  - > AI install: language support in profile
  - > Language package updates using the repo (P2)
- When the 2 needed IPS features will be available?

# References

- Project page:

<http://wikis.sun.com/display/g11n/G11nInstall+Interface+project+pag>

- Proposal of G11nInstall module:

[http://wikis.sun.com/download/attachments/45908778/g11ninstall\\_m](http://wikis.sun.com/download/attachments/45908778/g11ninstall_m)

- Original (IPS-based) Proposal of the G11nInstall interface and Locale bits tagging:

<http://wikis.sun.com/download/attachments/45908778/design.txt>



# G11n Install interface and G11n bits install mngmt using IPS tags

Jan Trejbal

[jan.trejbal@sun.com](mailto:jan.trejbal@sun.com)



# Appendix

## Locale tagging example - SUNWlang-fr:

| NAME | PATH  | LANGUAGE | TERRITORY | ENCODING | MESSAGE |
|------|---|----------|-----------|----------|---------|
| dir  | usr/lib/locale/fr.UTF-8                     | fr       |           | UTF-8    |         |
| dir  | usr/lib/locale/fr.UTF-8/LC_MESSAGES         | fr       |           | UTF-8    | true    |
| file | usr/lib/locale/fr.UTF-8/LC_MESSAGES/*.mo    | fr       |           | UTF-8    | true    |
| dir  | usr/lib/locale/fr_FR.UTF-8                  | fr       | FR        | UTF-8    |         |
| file | usr/lib/locale/fr_FR.UTF-8/fr_FR.UTF-8.so.3 | fr       | FR        | UTF-8    |         |
| dir  | usr/lib/locale/fr_CA.UTF-8                  | fr       | CA        | UTF-8    |         |
| file | usr/lib/locale/fr_CA.UTF-8/fr_CA.UTF-8.so.3 | fr       | CA        | UTF-8    |         |
| ...  |   |          |           |          |         |

# Appendix

## Locale tagging example - SUNWa2ps:

| NAME | PATH                                    | LANGUAGE | TERRITORY | ENCODING | MESSAGE |
|------|---|----------|-----------|----------|---------|
| dir  | usr/bin                                 |          |           |          |         |
| file | usr/bin/a2ps                            |          |           |          |         |
| file | usr/share/locale/fr/LC_MESSAGES/a2ps.mo | fr       |           |          | true    |
| file | usr/share/locale/de/LC_MESSAGES/a2ps.mo | de       |           |          | true    |
| file | usr/share/locale/es/LC_MESSAGES/a2ps.mo | es       |           |          | true    |
| ...  |   |          |           |          |         |

# Appendix

Filter example:

French I10n and English files needed by Canadian UTF-8 locales (fr\_CA, en\_CA):

```
arch=i386  
language=fr | en  
territory=CA  
encoding=UTF-8  
message=true  
documentation=false
```