

Seagull Application Framework

PhpLondon Talk, November 2004

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Introduction

- What is Seagull?
 - 1 year at Sourceforge, monthly releases
 - 100 developers on mailing list
 - BSD licensed
 - Translated into 16 languages
 - 134, 931 LOC
 - 794 kb download with PEAR installer
- Project goals
- Target audience
- Background

Why use a framework?

- The result of using a framework is that 10–20% of the total code for a project is application specific, giving a huge reduction in code size, and improving readability and maintainability considerably.
- Because it's useful to get standard foundations, the same way to build an app. It may be harder at the beginning but then everyone speaks the same language. It's a reason why Java is popular.

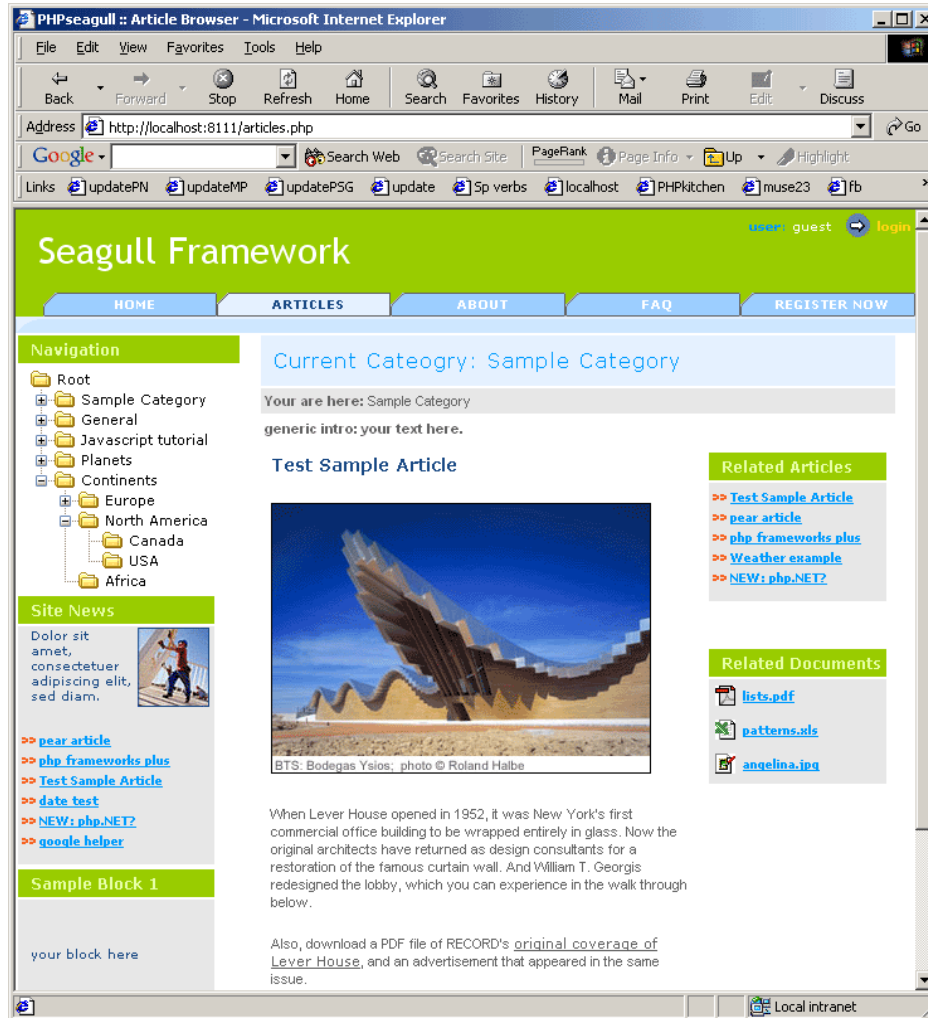
What does Seagull do?

- Permissions handling and authentication
- Facilitates team development environment
- Internationalisation/localisation
- Application config
- Personalisation: preferences and themes
- Cacheing and performance
- Simplified error handling

What does Seagull do? /cont.

- Workflow
- Db abstraction
- Class library integration
- Form management
- Data validation
- Component reuse

Figure 1: Typical screen



Refresher on OOP, design patterns

- Why use OOP approach?
- Benefits of MVC workflow
- Frequently used patterns:
 - Factory
 - Singleton
 - Template
 - Delegate

PEAR

Pros

- High quality code base
- Active peer review
- Package manager
- Responsive maintainers

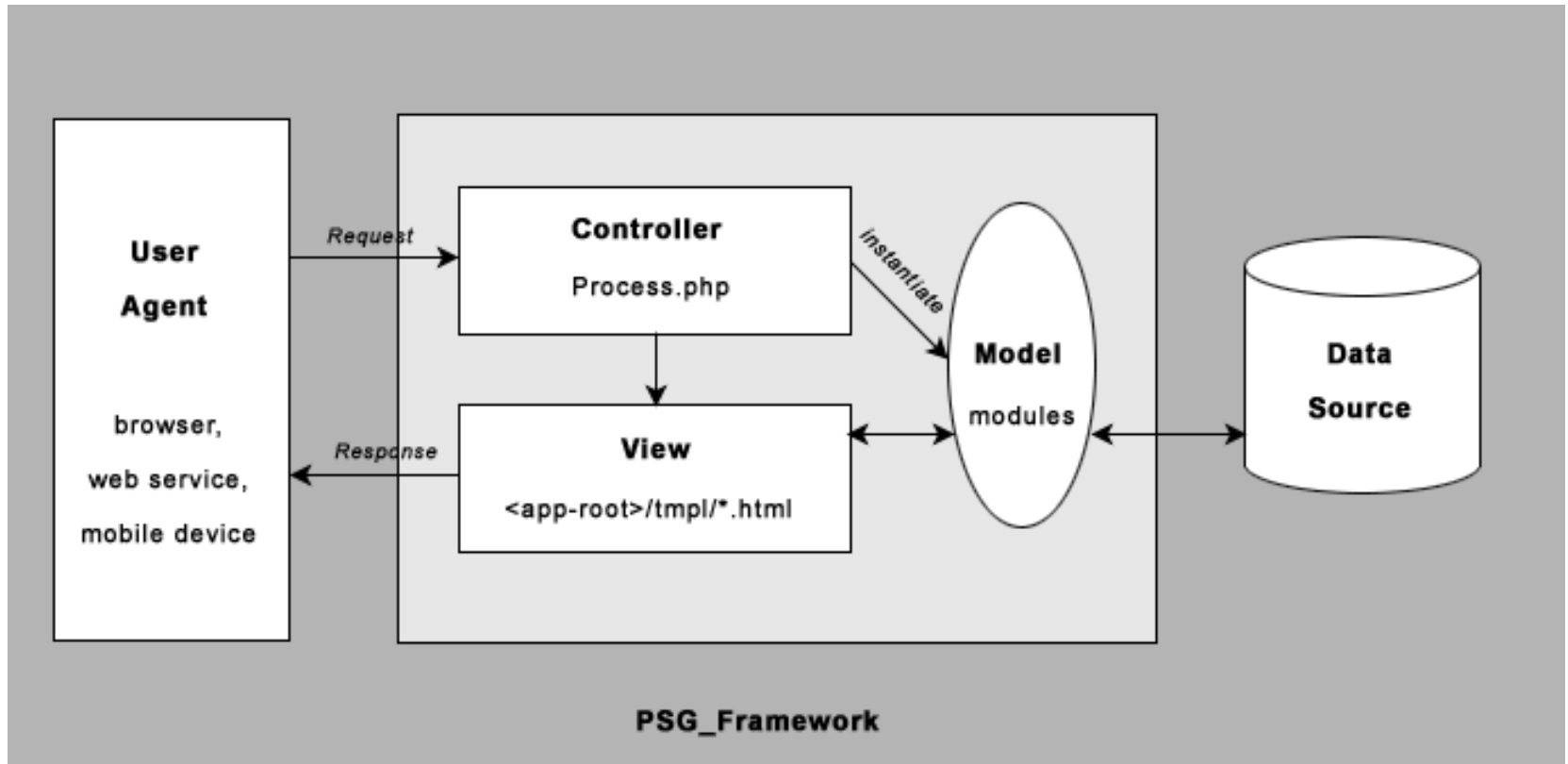
Cons

- Inconsistency of quality
- Occasional package obesity

Packages Used

- Benchmark
- Cache_Lite
- Date
- DB
- DB_Pager
- DB_DataObject
- DB_NestedSet
- HTML_Javascript
- HTML_TreeMenu
- HTML_Template_Flexy
- Log
- Mail
- Net_UserAgent
- PHPdocumentor
- System
- Text_Password
- Text_Statistics
- Validate

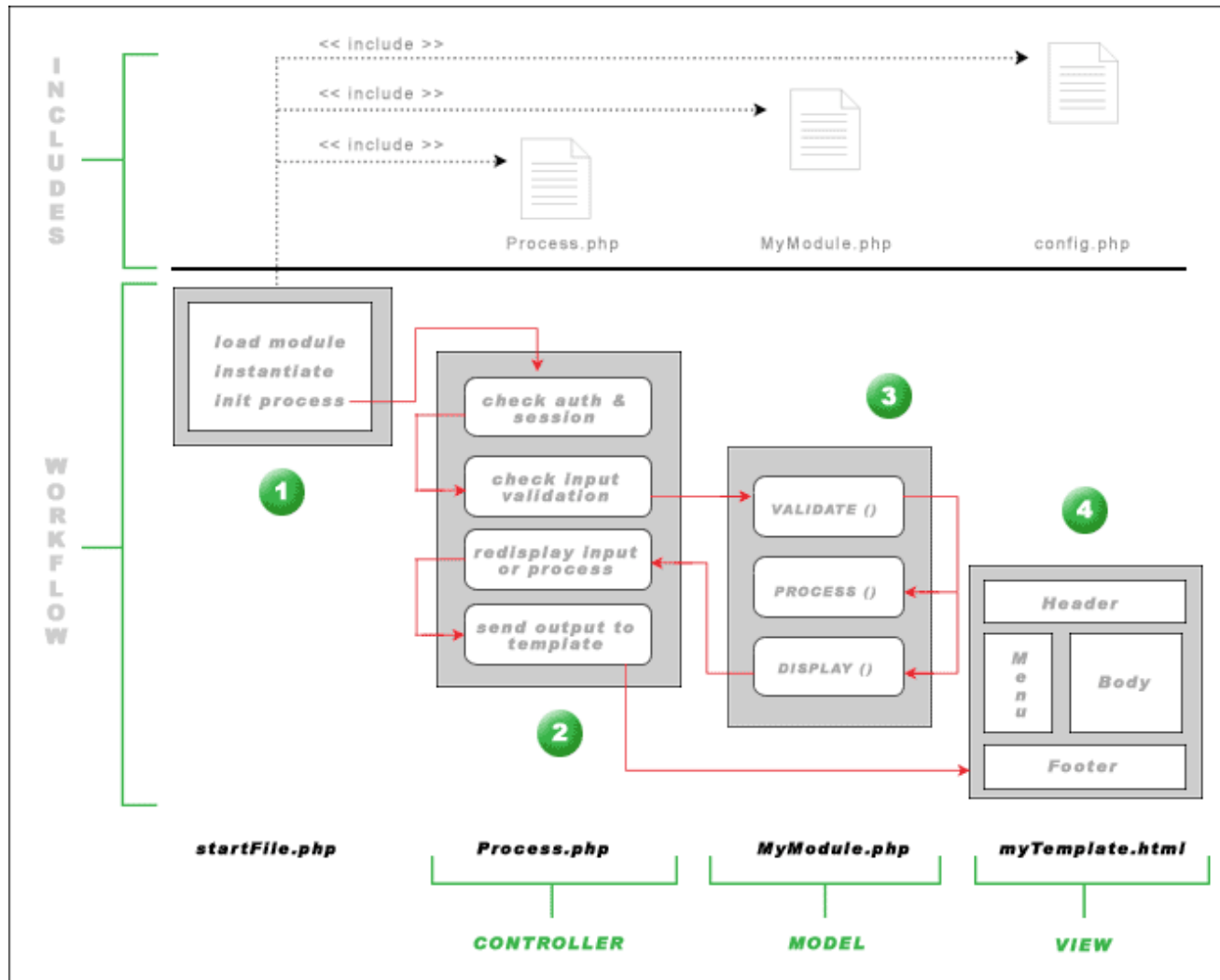
Figure 3: MVC



Seagull concepts

- MVC, OOP, modular design
- libs, modules, managers and controller
- workflow:
 - Validate
 - Process
 - Display

Figure 3: Workflow



System objects

- Session
- Config
- DB
- Cache
- Preferences
- User

Performance

- Without PHP cacheing or bytecode cache, around 12 reqs/sec
- Typical configuration
 - cpu: amd 1.4 Ghz
 - ram: 512MB
 - Apache/linux

63 reqs/sec

Community

- Active Sourceforge project
- 15 Core developers
- Mailing list
- Wiki documentation project
- Range of skills



Best practices

- PEAR coding standards
- library usage
- unit testing: SimpleTest
- template/business logic separation
- security conscious
- performance
- self-generating documentation: phpDoc

Practical Example A

- FAQ manager example (see <http://muse23.com/cgi-bin/cvsweb.cgi/seagull/modules/faq/classes/FaqMgr.php>)

Practical Example B

- User manager example (see <http://muse23.com/cgi-bin/cvsweb.cgi/seagull/modules/user/classes/UserMgr.php>)

Projects using Seagull/1

Anne des Prairies - Ses tableaux, ses faire-parts et invitations - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://www.annedesprairies.com/www/index.php> Go

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TABLEAUX

Tableaux

Pour commander :
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1 sq Léon Bourgeois - 35000 Rennes
02 23 30 86 98

Le coin des enfants

Les Tableaux Doudous

Les Tableaux Déco

Les Tableaux Côté déco

Faire-parts - Invitations

Les Tableaux Collages

Objets déco

Adresses

Expositions

Coup de coeur

Moi, moi, moi

Anne des Prairies - 2004

Conception : Cliquebis

Done Internet

Projects using Seagull/2

The image shows a screenshot of a Microsoft Internet Explorer browser window displaying the Matchpoints.co.uk website. The browser's address bar shows the URL `http://matchpoints.flameback.com/`. The website's header features the Matchpoints logo on the left, a navigation menu with links for 'SEARCH', 'ABOUT US', and 'REGISTER NOW', and a 'Completely FREE!!!' banner with a heart icon. The main content area is a search interface with the following fields and options:

- I am:** Male (dropdown menu)
- I am looking for:** Female (dropdown menu)
- aged:** any age (dropdown menu)
- from:** Select from list (dropdown menu)
- only show results with photos:**

A 'Begin Search...' button is located below the search fields. A link for 'Already a member? Click here to login' is also present. The left sidebar contains a vertical navigation menu with links for 'FAQs', 'TESTIMONIALS', 'T'S & C'S', 'PRIVACY', and 'LOGI3'. The browser's status bar at the bottom shows 'Done' and 'Internet'.

Projects using Seagull/3



Mick Heuberger Design :: Offers - Microsoft Internet Explorer

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Radu F. Alexandru

stiri de ultima ora

- [Ziua, 15 oct. 2004, Senatul, pus la colt in cazul Romania Libera. Porcaria liberalului Paul Pacurar.](#)
- [Comunicat de Presa privitor la ridicarea acreditarii cotidianului Romania libera de catre Biroul Permanent al Senatului](#)
- [Declaratie politica – O tara inspaimantatoare.](#)

HOME PAGE

Numele si prenumele:	Feldman Radu Alexandru
Pseudonim literar:	Radu F. Alexandru
Data nasterii:	12.07.1943
Locul nasterii:	Bucuresti;
Starea civila:	Casatorit, un copil;
Studii:	1983 Facultatea de regie teatru, Institutul de Arta Teatrala si Cinematografica; 1974 Facultatea de Filozofie, Universitatea Bucuresti; 1965 Facultatea de Matematica Universitatea Bucuresti;

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GALERIE FOTO

Done Internet

Projects using Seagull/5

The screenshot shows a Microsoft Internet Explorer browser window displaying the website for the Schweizerischer Gehörlosenbund (SGB-FSS). The browser's address bar contains the URL <http://www.sgb-fss.ch/>. The page features a blue header with the organization's logo and name, along with contact information: SGB-DS, Oerlikonerstrasse 98, 8057 Zürich, Telefon 01 315 50 40, and Email sgbds@sgb-fss.ch. Below the header is a login section with fields for 'Benutzername' and 'Passwort', and buttons for 'Anmelden', 'Registrieren', and 'Passwort vergessen'. The main content area is titled 'Willkommen auf der SGB-FSS Webseite!' and includes a 'Newsletter' sign-up form with an 'Email' input field and 'Anmelden' and 'Abmelden' buttons. A sidebar on the left contains a navigation menu with items like 'Über SGB-FSS', 'Ziele', 'Organisation', 'Projekte', 'Spenden', 'Kontakt', 'Kultur & Politik', 'Allgemeine Infos', 'Agenda', 'Frauen', 'Usher Infostelle', 'Diskussionen', 'Bilder-Galerien', 'Dienstleistungen', 'Kurse und Bildung', 'Produkte', 'Zeitschriften', and 'Dolmetschdienst'. The main content area also features a 'Die Top 10 neuer News' section with a link to 'visuell plus 10' and a news article snippet: 'Am 16. Oktober protestierten 10'000 Behinderte gegen die NFA. Wird das Volk den Protest unterstützen? Sportredaktorin: "Das grosse Kribbeln" Mehr >>'. The footer of the page includes a link to 'Bildung >> SGB/SGSV-Sponsorenlauf am Sonntag, 26. September 2004 in Zürich'.

Road Map

- xml-rpc wizard for upgrading/installing modules like PEAR/webmin
- separate core framework
- write tests for all modules
- 3rd party application bridge
- content versioning
- increase db vendor support

Resources

- <http://seagull.phpkitchen.com>
- <http://seagull.phpkitchen.com/docs>
- <https://sourceforge.net/projects/seagull>
- <http://marc.theaimsgroup.com/?l=seagull-general>
- <http://www.phpkitchen.com/index.php?topic=phpFrameworks>
- demian@phpkitchen.com

Thank you