

Code Quality on Magento

Motivation | General Quality | Magento Quality

Dr. Nikolai Krambrock

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Dr. Nikolai Krambrock

Computer Scientist

4 years Magento experience

28 years of development experience

CEO at code4business Software GmbH in Aachen, Germany

Focus on Processes, Quality and Code-Reviews in my current work

Agenda

- Motivation
- General Code Quality
- Magento-Specific Code Quality
- Questions and Answers

```
<HTML>
<HEAD>
<TITLE>TITLE</TITLE>
<meta http-equiv="Content-Type" content="text/html; charset=
<META http-equiv="Content-Type" content="text/html; charset=
<meta http-equiv="Content-Language" content="en">
<META name="description" content="TITLE">
<META name="keywords" content="TITLE">
<meta name="visit-after" content="2 days">
<meta name="robots" content="index, follow">
<link href="display/style.css" rel="stylesheet" type="text/css">
</HEAD>
<%if Request("Back") = "1" then%>
<Script Language="JavaScript">

</script>
<%end if%>
<%ret = Request("id")%>
<FRAMESET ROWS="65" FRAMEBORDER=0>
<FRAME SCROLLING=NO BORDER=0 noresize marginheight.
<FRAME NAME=
```

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Are we aware of code quality in Magento?



magento quality



Web

Bilder

Videos

News

Shopping

Mehr ▾

Suchoptionen

Ungefähr 5.740.000 Ergebnisse (0,26 Sekunden)

How to deal with image quality in magento? - Stack Overflow

[stackoverflow.com/.../how-to-deal-with-image-quality...](#) ▾ Diese Seite übersetzen

31.05.2012 - I've noticed that on my website Many of the images are overoptimized ... A method called setQuality has been implemented and can be used ...

thumbnails - Magento resize() image quality - Stack Overflow

[stackoverflow.com/.../magento-resize-image-quality](#) ▾ Diese Seite übersetzen

05.12.2011 - I have a client who is seriously unhappy with the way their product ... The dirty white background problem is caused by the php resize function.

Blog - Set quality of magento product images ... - Customy

[www.customy.com/.../set-quality-of-magento-produ...](#) ▾ Diese Seite übersetzen

08.11.2011 - Set quality of magento catalog product images directly in template files. There is no need to duplicate and edit core files or adapters.

Magento :: JPG Images Looking Blurry In Category View

[mindyourownwebsite.com.au/magento-jpg-images-l...](#) ▾ Diese Seite übersetzen

06.07.2014 - This solution worked for me on Magento 1.9.0.1. ... If you put in an image with JPG quality 80%, when it's resized, it will have 80% of 80% ...

Poor Image Quality Fix for Magento - HungryPiranha.org

[www.hungrypiranha.org/.../magento-product-image...](#) ▾ Diese Seite übersetzen

Magento compresses product images by default, reducing the quality and color. Here's

What is code quality good for?

For customers

- Functionality
- Usability
- Security
- Availability and Reliability

For developers

- Code is easy to read
- Easy to understand
- Easy to adapt
- Easy to extend

Good code is easy to use. It leads to reasonable development costs and a late end-of-life.

GENERAL CODE QUALITY



Coding Conventions (1)

- Middle size: classes 100-200 Lines of Code (LoC), methods 3-20 LoC
- Speaking variable names:
very bad: `$c = Mage::getModel(...);`
bad: `$customer = getModel(...);`
good: `$customerToAdd = getModel(...);`
- Speaking methods and class-names:
„deepClone()“ better than „copy()“
- Avoid dead code and unread variables;
static analysis is possible

Coding Conventions (2)

- Avoid duplicated source code – code smell #1 according to Martin Fowler
- Easy solutions: 5 static methods instead of interface and class hierarchy
- Double check of indentation > 3
- Magic numbers: Where does the 7 come from?

Define and follow coding conventions
in your team

Tools

- **#1 Use version management** like git or svn:
Single-Branch if all are in one room;
Multi-Branch in case of spread development
- **#1 Use a proper Development environment** like
Zend Studio, PHP-Storm, Eclipse PDT or Netbeans
- **#2 Debugger** like Zend Debugger or Xdebug
- **#2 Automated tests:**
Black-Box (Selenium) easy vs. White-Box (PHPUnit)

Use IDE and version management

MAGENTO-SPECIFIC CODE QUALITY



Maintain the ability to Update (1)

- No core-hacks
- No hacks of external modules
 - Instead: Rewrites, better observer
- No changes of language files
 - Instead: Separated translation files
- Correct use of code pools
 - **local**: Project-specific modules
 - **community**: Published/shared modules
 - **core**: Core
 - **lib**: External library

Maintain the ability to Update (2)

- Minimize copies of template files
 - local.xml
 - Use (multiple) fallbacks

Don't change other peoples code –
use proper Magento techniques instead

Encapsulation of Modules

- Modules independent of other modules:
Limited dependency shown in the modules
- Modules independent of templates:
Layout-updates (base/default) instead
of adaption of template files
- Template independent of modules:
One module that covers additional
functions of the template

Be able to switch off every
module and template individually

Minimal Changes

- Minimal amount of Line of Code (LoC) for a function
 - „only no code is good code“
- Use existing functions
- Example: Implement free products with price rules
 - <http://github.com/code4business/freeproduct/>
- Example: Generate additional custom options to have tier prices for custom options
 - <http://www.code4business.de/tier-prices-for-magento-custom-options-en/>

Write least possible code

Model View Controller (MVC)

- Separation of code and template
 - No (SQL-)code in the template!
 - No HTML in the code!
- Try to implement MVC
 - Data based functions (e.g. fullName) in models
 - Logic in controllers and observers
 - Help functions for the template in blocks
 - Observer are models by convention

Separate code and html

Setup Scripts

- Setup scripts instead of direct updates through backend
 - Tables and columns of the database
 - Attributes
 - Configuration
 - Content (CMS, categories, products, ...)
- More reliable deployment

Use setup scripts

Third-Party Modules

- Use of modules of well-known resources
- Detailed code-analysis is an alternative
- Avoid modules with encrypted code, licensing modules or class loaders
- Customers think of third-party modules being “Plug-and-Play” – they often are “Plug-and-Pray”

Checking Third-Party modules is effort

Coding guidelines

- Zend Framework Coding Standard
<http://framework.zend.com/manual/1.12/de/coding-standard.html>
- Magento Extension Developers Guide
<http://info.magento.com/rs/magentocommerce/images/Magento-Extension-Developers-Guide-v1.0.pdf>
- **Imitate the Magento-core**

Thank you for your attention!

Questions?



Blog and slides:
<http://www.code4business.de/quality>



Xing: Nikolai_Krambrock | Twitter: @nkrambrock
code4business Software GmbH | Dennewartstr. 25-27 | 52068 Aachen | Germany