

## SWIG Based PHP Bindings to Subversion

Greetings!

I wish to take on development of PHP bindings to Subversion API as a part of Subversion's participation in Google's Summer of Code.

This would greatly increase the accessibility of Subversion and expand the developer base. PHP programmers will now be able to use SVN in their applications. Coupled with PHP-GTK (ability to develop Gtk based desktop applications in PHP) this project offers some interesting possibilities.

In addition to benefiting Subversion, this project will also benefit the PHP community by offering them the opportunity to use Subversion, thereby increasing PHP's feature set.

### Deliverables

At the end of the program, SWIG based PHP bindings to the Subversion core C API will be ready for inclusion in the next appropriate Subversion bindings release.

Non-Code deliverables will include documentation and tutorials for usage of the binding.

### Project Details

As mentioned before, the bindings will be developed using SWIG. The interface files for the same have already been authored and are in use for the Python, Perl and Ruby bindings.

This means that majority of the work involved would be to:

1. Modify Interface Files (/bindings/\*.i)
2. Write Utility functions (/bindings/php/libsvn\_swig\_php)
3. Author PHP interface files (/bindings/php/svn)
4. Write Unit tests (/bindings/php/tests)

The bindings will very closely emulate the development methodology of the existing SWIG based bindings. It may be necessary to modify the existing SWIG interface files to take care of any eccentricities that the generated modules show. Additional code to glue the module properly with PHP may also be required.

## Project Schedule

The project is planned to be split across 6 major stages:

1. **Analysis** (May 23 - June 5):  
This stage involves detailed analysis of how SWIG works. This stage is necessary as I am not very familiar with SWIG, and would like to spend some time on finding out how it works. Project infrastructure (SVN Repository & Website) will also be setup during this stage.
2. **Development Part I** (June 6 - June 25):  
This stage will involve analysing the interface files and testing it for its suitability for generating a PHP extension. If any changes are required, they will be made in this stage.
3. **Development Part II** (June 26 - July 15):  
This stage will involve authoring the utility functions that will be required by SWIG to generate the PHP bindings.
4. **Development Part III** (July 16 - July 31):  
This stage involves authoring the PHP interface files to make the bindings usable from within PHP scripts. At the conclusion of this stage, the bindings will be usable in applications.
5. **Unit Tests and Bug Fixing** (August 1 - August 10):  
The PHP unit tests to verify the integrity of the bindings will be authored at this stage. Any peculiarities that are detected will be investigated and fixed.
6. **Wrap-Up and Documentation** (August 11 - August 21):  
The last stage of the project will involve readying the bindings for inclusion in the next appropriate release of Subversion. Basic documentation and tutorials for the usage of the binding will also be prepared at this stage.

## Bio

I am a second-year undergraduate at the Malaviya National Institute of Technology, Jaipur, India. I am pursuing my B.Tech. in Computer Engineering at the institute. I have been passionate about computers since my childhood and have been a free software advocate for around 2 years now.

I am an active developer in several open source projects, the most prominent of which are GNU Parted and PHP-GTK 2. My involvement in many such open source projects has brought me a great deal of experience in the open-source development methodology and environment.

I will have no trouble merging in and working together with the Subversion team, given my experience in the open source arena. I was offered repository commit access to both the PHP and GNU Parted repositories within a month of my involvement with them, and I believe this

goes to show the quality and timeliness of my coding efforts.

I am an official PHP developer and am quite familiar with the internal workings of PHP as a language. I am also quite strong in C and C++. I don't think you'll find me lacking in any of the technical skills required for this project.

I have been using Subversion for over a year now as part of my involvement in various open source projects. This gives me a unique perspective on the project as an end-user. I know what I would like to see in a PHP binding to SVN for use in PHP applications.

I would love to continue offering my services as a developer to the Subversion Project even after the Summer of Code program concludes. I guarantee that I will take full responsibility for maintenance of the bindings that I create during this project and will strive to be an asset to the Subversion team.

You can find more details about me, and the projects that I am currently involved in, at my website. Please don't hesitate to contact me if any part of this proposal is not clear to you.

Thank you for considering this proposal, and for your time!

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My CV : <http://www.kix.in/soc/resume.pdf>

My Website : <http://www.kix.in/>

The latest version of the proposal is available at:

<http://www.kix.in/soc/svn-php.pdf>

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