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Subject: LuaPlus packages

Posted by [gridem](#) on Sat, 20 Jun 2009 13:23:12 GMT

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I've prepared the LuaPlus packages:

1. LuaPlus - the basis package to build lua applications
2. LuaPlusCompiler - lua compiler command line utility
3. LuaPlusInterpreter - lua interpreter command line utility
4. TestLuaPlus - simple test to demonstrate LuaPlus framework

What is Lua?

Lua is a powerful, fast, lightweight, embeddable scripting language.

Lua combines simple procedural syntax with powerful data description constructs based on associative arrays and extensible semantics. Lua is dynamically typed, runs by interpreting bytecode for a register-based virtual machine, and has automatic memory management with incremental garbage collection, making it ideal for configuration, scripting, and rapid prototyping.

The LuaPlus provides the following functionality:

- \* All the power of the core Lua 5.1 work distribution.
- \* An easy to use C++ interface:
  - o The C++ interface, described below, masks many of the intricacies of core Lua's underlying low-level C API. In particular, stack management is mostly ignored. Other useful helper classes, such as management of ref'ed objects or the stack, table traversal, and table lookups are provided, dramatically simplifying the application code.
  - o Simplified function calling convention. Inspired by, to a limited degree, Python's use of tuples in its C API, the new function calling convention masks the stack pushing and popping associated with the low-level calling convention.
  - o A newly added function calling convention enables C++ to call Lua functions as if they were regular C++ functions. This goes a long way to simplifying Lua for C++ users.
  - o A transparent C++ functor implementation is in place, allowing function callbacks to be global or static (as they are now), class member functions, or class member virtual functions.
  - o Direct registering of C++ functions with LuaPlus. The registered C++ functions do not need to conform to a standard callback declaration.

For more information you may use the following links:

<http://www.lua.org/about.html>

<http://luaplus.org/tiki-index.php?page=LuaPlus+Home+Page>

Warning: I've tested these packages only on Windows platform.

## File Attachments

1) [LuaPlus.zip](#), downloaded 477 times

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Subject: Re: LuaPlus packages  
Posted by [gridem](#) on Sat, 20 Jun 2009 17:33:03 GMT  
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From <http://www.luatex.org/faq.html>

Quote: Why not use language X instead of Lua?

We needed a language that matched all of the following criteria:

- \* Freely available
- \* Embeddable integrate within pdfTeX
- \* Very small footprint
- \* Portable
- \* Easy to extend with pdfTeX-specific functionality
- \* Fun to work with

Lua was the first language to match all the criteria. The known scripting languages tend to be much too large for our use. Specifically, we have rejected Java, Perl, Python, Ruby, Scheme on one or more of those criteria.

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Subject: Re: LuaPlus packages  
Posted by [gridem](#) on Tue, 23 Jun 2009 10:51:14 GMT  
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I've checked on Linux Mint x32 also. It works fine.

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