

Request for Reconsideration after Final Action

The table below presents the data as entered.

Input Field	Entered
SERIAL NUMBER	77844736
LAW OFFICE ASSIGNED	LAW OFFICE 102
MARK SECTION (no change)	
ARGUMENT(S)	<p>This is a request for reconsideration in response to the final action issued on this application on February 2, 2011.</p> <p>The applicant, Apple Inc. ("Apple"), is simultaneously filing a Notice of Appeal.</p> <p>Disclaimer</p> <p>The Examining Attorney has maintained the requirement of a disclaimer of the term OPENCL, on the grounds that OPENCL is descriptive or generic as applied to Apple's software. Specifically, the Examining Attorney has taken the position that OPENCL is descriptive or generic because it refers to a programming language and a standard used in computing industry. However, there is simply no authority for the proposition that the name of a programming language, or an open standard, cannot function as a distinctive trademark for software.</p> <p>While OPENCL may refer to a programming language, it is also a mark for the standard on which that language is based, and a mark for the software program that implements the standard. As such, it functions as an indicator of origin.</p> <p>The Trademark Office has, over several decades, registered the names of numerous programming languages that also function as marks for computer software. Like these registered marks, Apple's OPENCL functions as an indicator of origin. Among active registrations are some of the most well-known programming languages in use today, including PERL, CURL, MATHEMATICA and PYTHON:</p> <ul style="list-style-type: none">• PERL and design (RN 3178940)• MATHEMATICA (RN 2609439)• PYTHON (RN 2824281)• F# (RN 3667334)• CURL (RN 2747485)• ATEJI (RN 3402349)

- CINCOM SMALLTALK (RN 2,876,171)
- SYSML (RN 3,891,789)
- NEWLISP (RN 3,239,152)
- NU (RN 3,448,787)
- FAN (RN 3,404,342)
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- QLARITY (RN 3,168,196)
- VISUALPHP (RN 3,029,572)
- LUA (RN 3978463)

Details of these registrations are set forth at **Exhibit A**.

Apple previously submitted examples of additional programming languages whose names are registered as trademarks for software, including JAVA (RN 2178784) and APPLESCRIPT (1887822). The Examining Attorney responded by noting that “prior decisions and actions of other trademark examining attorneys in registering different marks have little evidentiary value and are not binding upon the Office.” However, the Examining Attorney provides copies of registrations in which a programming language name has been disclaimed -- thereby suggesting that prior examining attorney decisions do have evidentiary value -- if they contain a disclaimer.

The final office action advocates for a *per se* rule that the name of a computer language is inherently not registrable. However, the third party registrations cannot be entirely discounted, because they demonstrate that no such *per se* rule exists. The implication of the Examining Attorney’s position is that the Trademark Office made an error when it registered each one of the marks identified above, because each mark is the name of a programming language, and the name of programming language is always generic or descriptive for software. That premise cannot be true.

OPENCL was conceived and created by Apple as a technical framework for writing computer programs that execute on devices with multiple processors. The framework includes a programming language as one of its components. Apple has licensed the mark to the Khronos Group, an industry consortium that manages the ongoing development of specifications for OPENCL as a computing standard, and administers a conformance program for the standard. The members of Khronos—namely, companies such as NVIDIA, IBM, and AMD—are licensed to use the mark OPENCL in connection with their own conforming implementations of the standard through the conformance program. See **Exhibit B** and **Exhibit C** at ¶ 5.

Apple itself uses OPENCL as a mark for a particular implementation of the OPENCL standard—namely, an application program interface (API) computer software feature of the Mac OS X operating system. See **Exhibit C** at ¶ 8. The fact that OPENCL is a language and an open standard does not disqualify it from trademark protection, because it functions as an indicator of a single source.

In support of the refusal, the Examining Attorney relies on (1) examples of registered third-party marks in which the name of a programming language is disclaimed, and (2) a court decision from nearly two decades ago, which did not concern a programming language. Neither of these lines of argument is persuasive. With respect to the third-party marks, the fact that some names of programming languages have been regarded as descriptive or generic (e.g., COBOL, BASIC, C++) does not establish that all names of programming languages are descriptive or generic. To the contrary, the Trademark Office's historical practice demonstrates that some names of programming languages are descriptive or generic, but many others are not.

Similarly, the cited Federal Circuit decision in Loglan Inst., Inc. v. Logical Language Group, Inc., 962 F. 2d 1038 (Fed. Cir. 1992), did not establish that all names of programming languages are descriptive or generic. The mark at issue referred to a human language, not a computer programming language, and the goods at issue were printed dictionaries and grammars in Class 16, not computer software. For those reasons alone, Loglan has no direct relevance to Apple's trademark application. Moreover, the court in Loglan did not rule that the name of a language is automatically generic or descriptive. Rather, the court held that the mark at issue "had entered into the public domain as a generic," based on substantial evidence that the mark had been used generically by its purported owner and by others.

In short, the Trademark Office has repeatedly recognized that the name of a programming language can function as a distinctive trademark for software, and there is no legal authority to the contrary. Thus, in order to demonstrate that OPENCL is generic or descriptive for Apple's software, the Examining Attorney cannot simply assert that OPENCL refers to a programming language, but must instead present evidence that OPENCL is understood as descriptive or generic within the industry.

In the final office action on this application, the Examining Attorney has submitted a handful of news articles that refer to OPENCL. Several of these articles are from foreign publications and thus have no relevance to the perception of OPENCL in the United States. However, none of the cited articles (whether foreign or domestic) provides evidence that OPENCL is descriptive or generic. The Examining Attorney notes that the articles refer to OPENCL as a programming language, and he concludes that "the relevant consuming public views OPENCL as the name of a programming language." Even if this were true, however, it would not establish that OPENCL is descriptive or generic for software; as explained above, a particular term can function both as the name of a programming language and as a trademark for software.

The Examining Attorney appears to believe that the cited news references to OPENCL are evidence of descriptiveness/genericness because they identify uses of the term by parties other than Apple. This is fundamentally incorrect. First, several of the news articles are actually reviews of Apple's proprietary Mac OS X Snow Leopard operating system, which includes the OPENCL software as a feature. Moreover, the fact that other parties are using the OPENCL standard obviously does not prove that they (or anyone else) regard the term as descriptive or generic. The Examining Attorney has cited multiple articles concerning the companies IBM, NVIDIA, and AMD—all of whom are "adopters" of the OPENCL standard administered by the Khronos Group. These companies use OPENCL under license from Apple, whom they recognize as the owner of the mark. See Exhibit B.

Though not precedential, the Trademark Trial and Appeal Board's recent decision in respect of the programming language LUA is instructive. In that case, the Board overturned a refusal to register the mark, in significant part because the applicant established that third-party uses of LUA cited by the examiner were references to the applicant's own programming language.

In re Faculdades Catolicas, Serial No. 77423725 (TTAB, July 10, 2010). The same circumstances apply in the present case.

Apple's OPENCL is not the only mark that Khronos Group licenses. As shown at **Exhibit D**, Khronos licenses the names of several other standards, including OPENGL, which is registered as a trademark for a graphics application programming interface (RN 1,861,701), and OPENML (RN 2,576,637), which is registered for an open source programming environment used in connection with digital media. The fact that a term refers to a standard does not mean that the term is generic. The name of a standard means of executing a process (for example, hypertext markup language or HTML) may in some instances be generic, but it does not follow that any standard is automatically generic.

As indicated above, Khronos manages and evolves the OPENCL standard under license from Apple, and has the sole ability to determine the specifications of the OPENCL standard – the specifications are not determined by general consensus or common usage. Developers are aware of this fact, and when they see the mark OPENCL in connection with a member's implementation of the standard, they know that the implementation has been certified to meet the specifications promulgated by Apple's licensee Khronos Group. See **Exhibit C** at ¶ 6. The fact that the name of an open standard is also the name of a programming language is irrelevant – consumers in the software development industry will still recognize the name as a trademark. Developers associate the name of an open standard with the organization that manages and evolves the standard, and developers use the mark as an indication of conformance to the criteria defined by that organization. See **Exhibit C** at ¶7.

In sum, neither the courts nor the Trademark Office has ever held that the name of a programming language or an industry standard is automatically descriptive or generic as applied to products that embody the programming language or the standard. To the contrary, the Trademark Office has registered numerous such marks. To support a finding a descriptiveness or genericness, the Trademark Office would need to show not merely that third parties use OPENCL in reference to a programming language or standard, but that the term is actually recognized as generic or descriptive in the relevant industry. The Examining Attorney has not met this burden. Apple, however, has demonstrated that the leading companies in the industry use the mark OPENCL under license, which clearly confirms that the mark functions as an indicator of source.

In light of the foregoing, Apple respectfully requests that the examining attorney withdraw his request for a disclaimer of the term OPENCL.

EVIDENCE SECTION

EVIDENCE FILE NAME(S)

ORIGINAL PDF FILE evi_2041552263-120712561_OPEN CL Exhibits A-D.pdf

CONVERTED PDF FILE(S)

(81 pages)

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DESCRIPTION OF EVIDENCE FILE

TESS records and web printouts supporting arguments

SIGNATURE SECTION

RESPONSE SIGNATURE /Lisa G. Widup/

SIGNATORY'S NAME Lisa G. Widup

SIGNATORY'S POSITION Intellectual Property Counsel

DATE SIGNED 08/02/2011

AUTHORIZED SIGNATORY YES

CONCURRENT APPEAL NOTICE FILED NO

FILING INFORMATION SECTION

SUBMIT DATE	Tue Aug 02 12:32:00 EDT 2011
TEAS STAMP	USPTO/RFR-204.155.226.3-2 0110802123200342200-77844 736-48030ec38c2a298c16e05 7399a43883c81-N/A-N/A-201 10802120712561982

PTO Form (Rev 4/2000)
OMB No. 0651-.... (Exp. 08/31/2004)

Request for Reconsideration after Final Action

To the Commissioner for Trademarks:

Application serial no. **77844736** has been amended as follows:

ARGUMENT(S)

In response to the substantive refusal(s), please note the following:

This is a request for reconsideration in response to the final action issued on this application on February 2, 2011.

The applicant, Apple Inc. ("Apple"), is simultaneously filing a Notice of Appeal.

Disclaimer

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While OPENCL may refer to a programming language, it is also a mark for the standard on which that language is based, and a mark for the software program that implements the standard. As such, it functions as an indicator of origin.

The Trademark Office has, over several decades, registered the names of numerous programming languages that also function as marks for computer software. Like these registered marks, Apple's OPENCL functions as an indicator of origin. Among active registrations are some of the most well-known programming languages in use today, including PERL, CURL, MATHEMATICA and PYTHON:

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OS X operating system. See **Exhibit C** at ¶ 8. The fact that OPENCL is a language and an open standard does not disqualify it from trademark protection, because it functions as an indicator of a single source.

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Similarly, the cited Federal Circuit decision in Loglan Inst., Inc. v. Logical Language Group, Inc., 962 F. 2d 1038 (Fed. Cir. 1992), did not establish that all names of programming languages are descriptive or generic. The mark at issue referred to a human language, not a computer programming language, and the goods at issue were printed dictionaries and grammars in Class 16, not computer software. For those reasons alone, Loglan has no direct relevance to Apple's trademark application. Moreover, the court in Loglan did not rule that the name of a language is automatically generic or descriptive. Rather, the court held that the mark at issue "had entered into the public domain as a generic," based on substantial evidence that the mark had been used generically by its purported owner and by others.

In short, the Trademark Office has repeatedly recognized that the name of a programming language can function as a distinctive trademark for software, and there is no legal authority to the contrary. Thus, in order to demonstrate that OPENCL is generic or descriptive for Apple's software, the Examining Attorney cannot simply assert that OPENCL refers to a programming language, but must instead present evidence that OPENCL is understood as descriptive or generic within the industry.

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The Examining Attorney appears to believe that the cited news references to OPENCL are evidence of descriptiveness/genericness because they identify uses of the term by parties other than Apple. This is fundamentally incorrect. First, several of the news articles are actually reviews of Apple's proprietary Mac OS X Snow Leopard operating system, which includes the OPENCL software as a feature. Moreover, the fact that other parties are using the OPENCL standard obviously does not prove that they (or anyone else) regard the term as descriptive or generic. The Examining Attorney has cited multiple articles concerning the companies IBM, NVIDIA, and AMD—all of whom are "adopters" of the OPENCL standard administered by the Khronos Group. These companies use OPENCL under license from Apple, whom they

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As indicated above, Khronos manages and evolves the OPENCL standard under license from Apple, and has the sole ability to determine the specifications of the OPENCL standard – the specifications are not determined by general consensus or common usage. Developers are aware of this fact, and when they see the mark OPENCL in connection with a member's implementation of the standard, they know that the implementation has been certified to meet the specifications promulgated by Apple's licensee Khronos Group. See **Exhibit C** at ¶ 6. The fact that the name of an open standard is also the name of a programming language is irrelevant – consumers in the software development industry will still recognize the name as a trademark. Developers associate the name of an open standard with the organization that manages and evolves the standard, and developers use the mark as an indication of conformance to the criteria defined by that organization. See **Exhibit C** at ¶ 7.

In sum, neither the courts nor the Trademark Office has ever held that the name of a programming language or an industry standard is automatically descriptive or generic as applied to products that embody the programming language or the standard. To the contrary, the Trademark Office has registered numerous such marks. To support a finding a descriptiveness or genericness, the Trademark Office would need to show not merely that third parties use OPENCL in reference to a programming language or standard, but that the term is actually recognized as generic or descriptive in the relevant industry. The Examining Attorney has not met this burden. Apple, however, has demonstrated that the leading companies in the industry use the mark OPENCL under license, which clearly confirms that the mark functions as an indicator of source.

In light of the foregoing, Apple respectfully requests that the examining attorney withdraw his request for a disclaimer of the term OPENCL.

EVIDENCE

Evidence in the nature of TESS records and web printouts supporting arguments has been attached.

Original PDF file:

evi_2041552263-120712561 . OPEN CL Exhibits A-D.pdf

Converted PDF file(s) (81 pages)

Evidence-1
Evidence-2
Evidence-3
Evidence-4
Evidence-5
Evidence-6
Evidence-7
Evidence-8
Evidence-9
Evidence-10
Evidence-11
Evidence-12
Evidence-13
Evidence-14
Evidence-15
Evidence-16
Evidence-17
Evidence-18
Evidence-19
Evidence-20
Evidence-21
Evidence-22
Evidence-23
Evidence-24
Evidence-25
Evidence-26
Evidence-27
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Evidence-31
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Evidence-64
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Evidence-66
Evidence-67
Evidence-68
Evidence-69
Evidence-70
Evidence-71
Evidence-72
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Evidence-75
Evidence-76
Evidence-77
Evidence-78
Evidence-79
Evidence-80
Evidence-81

SIGNATURE(S)

Request for Reconsideration Signature

Signature: /Lisa G. Widup/ Date: 08/02/2011

Signatory's Name: Lisa G. Widup

Signatory's Position: Intellectual Property Counsel

The signatory has confirmed that he/she is an attorney who is a member in good standing of the bar of the highest court of a U.S. state, which includes the District of Columbia, Puerto Rico, and other federal territories and possessions; and he/she is currently the applicant's attorney or an associate thereof; and to the best of his/her knowledge, if prior to his/her appointment another U.S. attorney or a Canadian attorney/agent not currently associated with his/her company/firm previously represented the applicant in this matter: (1) the applicant has filed or is concurrently filing a signed revocation of or substitute power of attorney with the USPTO; (2) the USPTO has granted the request of the prior representative to

withdraw; (3) the applicant has filed a power of attorney appointing him/her in this matter; or (4) the applicant's appointed U.S. attorney or Canadian attorney/agent has filed a power of attorney appointing him/her as an associate attorney in this matter.

The applicant is not filing a Notice of Appeal in conjunction with this Request for Reconsideration.

Serial Number: 77844736

Internet Transmission Date: Tue Aug 02 12:32:00 EDT 2011

TEAS Stamp: USPTO/RFR-204.155.226.3-2011080212320034

2200-77844736-48030ec38c2a298c16e057399a

43883c81-N/A-N/A-20110802120712561982

Exhibit A



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F#

Word Mark	F#
Goods and Services	IC 009. US 021 023 026 036 038. G & S: computer programs for developing other computer programs; compiler programs, editor programs, debugger programs and utility programs for creating other computer programs; computer programs for assisting developers in creating program code for use in multiple application programs; and computer programs for running development programs and application programs. FIRST USE: 20020528. FIRST USE IN COMMERCE: 20020528
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Trademark Search Facility Classification Code	LETS-1 F A single letter, multiples of a single letter or in combination with a design NOTATION-SYMBOLS Notation Symbols such as Non-Latin characters,punctuation and mathematical signs,zodiac signs,prescription marks
Serial Number	77329768
Filing Date	November 14, 2007
Current Filing Basis	1A
Original Filing Basis	1B
Published for Opposition	April 22, 2008
Registration Number	3667334
Registration	

Date August 11, 2009
Owner (REGISTRANT) Microsoft Corporation CORPORATION WASHINGTON One Microsoft Way
Redmond WASHINGTON 980526399
Attorney of Record William O. Ferron, Jr.
Type of Mark TRADEMARK
Register PRINCIPAL
Live/Dead Indicator LIVE

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F Sharp (programming language)

From Wikipedia, the free encyclopedia

F# (pronounced **F Sharp**) is a multi-paradigm programming language, targeting the .NET Framework, that encompasses functional programming as well as imperative and object-oriented programming disciplines. It is a variant of ML and is largely compatible with the OCaml implementation. F# was initially developed by Don Syme at Microsoft Research but is now being developed at Microsoft Developer Division and is being distributed as a fully supported language in the .NET Framework and Visual Studio as part of Visual Studio 2010.^[2]

Contents

- 1 Overview
- 2 Examples
- 3 See also
- 4 Notes
- 5 References
- 6 External links

F#

Paradigm	multi-paradigm: functional, imperative, object-oriented
Appeared in	2002
Designed by	Microsoft Research
Developer	Microsoft Developer Division
Stable release	2.0 (April 12, 2010)
Typing discipline	static, strong, inferred
Influenced by	Objective Caml, C#, Haskell ^[1]
OS	Cross-platform (.NET Framework, Mono)
License	Apache license
Website	Microsoft F# Developer Center (http://fsharp.net)

↗ F Sharp Programming at Wikibooks

Overview

F# is a strongly typed language that uses type inference. As a result, data types need not be explicitly declared by the programmer: they will be deduced by the compiler during compilation. However, F# also allows explicit data type declaration. Being a CLI compliant language, F# supports all CLI types and objects but it extends the type system and categorizes types as immutable types or mutable types. CLI objects classify as mutable types (which can be edited in-place), and are used to provide an object-oriented programming model. Immutable types (editing such a type creates a new instance without overwriting the older one) are primarily used for functional programming.

Like ML, F# includes a functional programming component supporting eager evaluation. For functional programming, it provides several constructs and a set of immutable types: *tuples*, *records*, *discriminated unions* and *lists*.^[3]

An *n-tuple* represents a collection of *n* values, where *n* ≥ 0. The value *n* is called the arity of the tuple. The type `unit` corresponds to the 0-tuple and it has one value only: `()`, which conveys no information. The type `unit` is used to implement functions that need no input and/or return no value. A 3-tuple would be represented as `(A, B, C)`, where A, B and C are values of possibly different types. A tuple can be used only to store values when the number of values is known at design-time and stays constant throughout execution.



F# at Microsoft Research

F# is a succinct, expressive and efficient functional and object-oriented language for .NET which helps you write simple code to solve complex problems.

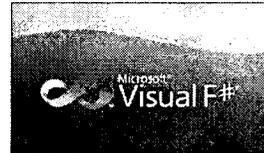
Download F# now!

F# brings you type safe, succinct, efficient and expressive functional programming language on the .NET platform. It is a simple and pragmatic language, and has particular strengths in data-oriented programming, parallel I/O programming, parallel CPU programming, scripting and algorithmic development. It lets you access a huge .NET library and tools base and comes with a strong set of Visual Studio development tools. F# combines the advantages of typed functional programming with a high-quality, well-supported modern runtime system.

This combination has been so successful that the language is now a first class language in Visual Studio 2010, and can also be used on Mac, Linux and other platforms. F# originates from Microsoft Research, Cambridge, and the MSR F# team, led by Don Syme, continues as partners with the Microsoft Developer Division. We seek to continue to break new ground in programming language design and implementation by making F# even better in upcoming versions.

For further information on using F# today, see fsharp.net.

- [F# Center](#)
- [F# Downloads](#)
- [Historical Acknowledgements](#)
- [Don Syme's Blog](#)





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Typed Drawing

Word Mark	PYTHON
Goods and Services	IC 009. US 021 023 026 036 038. G & S: Computer programs and downloadable computer programs that implement an object-oriented computer programming language. FIRST USE: 19951013. FIRST USE IN COMMERCE: 19951013
	IC 042. US 100 101. G & S: Providing information relating to an object-oriented computer programming language and its development environment. FIRST USE: 19950718. FIRST USE IN COMMERCE: 19950718
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	76044902
Filing Date	May 9, 2000
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	December 30, 2003
Supplemental Register Date	September 16, 2003
Change In Registration	CHANGE IN REGISTRATION HAS OCCURRED
Registration Number	2824281
Registration Date	March 23, 2004
Owner	(REGISTRANT) PYTHON SOFTWARE FOUNDATION CORPORATION DELAWARE P.O. Box 37 Wolfeboro Falls NEW HAMPSHIRE 038960037
Assignment Recorded	ASSIGNMENT RECORDED
Attorney of Record	Leanne Stendell
Type of Mark	TRADEMARK. SERVICE MARK

Register PRINCIPAL-2(F)
Affidavit Text SECT 15. SECT 8 (6-YR).
Live/Dead Indicator LIVE

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Python (programming language)

From Wikipedia, the free encyclopedia

Python is an interpreted, general-purpose high-level programming language^[5] whose design philosophy emphasizes code readability.^[6] Python aims to combine "remarkable power with very clear syntax",^[7] and its standard library is large and comprehensive. Its use of indentation for block delimiters is unique among popular programming languages.

Python supports multiple programming paradigms, primarily but not limited to object oriented, imperative and, to a lesser extent, functional programming styles. It features a fully dynamic type system and automatic memory management, similar to that of Scheme, Ruby, Perl, and Tcl. Like other dynamic languages, Python is often used as a scripting language, but is also used in a wide range of non-scripting contexts.

The reference implementation of Python (CPython) is free and open source software and has a community-based development model, as do all or nearly all of its alternative implementations. CPython is managed by the non-profit Python Software Foundation.

Python interpreters are available for many operating systems, and Python programs can be packaged into stand-alone executable code for many systems using various tools.

Contents

- 1 History
- 2 Programming philosophy
- 3 Name and neologisms
- 4 Usage
- 5 Syntax and semantics
 - 5.1 Indentation
 - 5.2 Statements and control flow
 - 5.3 Expressions
 - 5.4 Methods
 - 5.5 Typing
 - 5.6 Mathematics
- 6 Implementations
 - 6.1 CPython

Python



python

Paradigm	multi-paradigm: object-oriented, imperative, functional, reflective
Appeared in	1991
Designed by	Guido van Rossum
Developer	Python Software Foundation
Stable release	3.1.3/ November 27, 2010 2.7.1/ November 27, 2010
Preview release	3.2 rc 2/ January 31, 2011
Typing discipline	duck, dynamic, strong
Major implementations	CPython, IronPython, Jython, Python for S60, PyPy, Unladen Swallow
Dialects	Cython, RPython, Stackless Python
Influenced by	ABC, ^[1] ALGOL 68, ^[2] C, ^[3] C++, ^[4] Haskell, Icon, Java, Lisp, Modula-3, Perl
Influenced	Boo, Cobra, D, Falcon, Groovy, JavaScript, Ruby
OS	Cross-platform
License	Python Software Foundation License
Usual file extensions	.py, .pyw, .pyc, .pyo, .pyd
Website	www.python.org (http://www.python.org/)

Python Programming at Wikibooks



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Word Mark	PERL
Goods and Services	IC 009. US 021 023 026 036 038. G & S: computer software for use in cross-platform software application, software component and website development; computer software for use in developing, analyzing, coding, checking and controlling other computer software; and computer software that implements a procedural and object-oriented programming language. FIRST USE: 20041113. FIRST USE IN COMMERCE: 20041113
Mark Drawing Code	(3) DESIGN PLUS WORDS, LETTERS, AND/OR NUMBERS
Design Search Code	05.11.02 - Garlic; Leeks; Onions, leaks, spring onions; Scallions 26.01.21 - Circles that are totally or partially shaded.
Serial Number	76629502
Filing Date	January 27, 2005
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	September 19, 2006
Registration Number	3178940
Registration Date	December 5, 2006
Owner	(REGISTRANT) Yet Another Society DBA The Perl Foundation NON-PROFIT CORPORATION MICHIGAN P.O. Box 4353 Ann Arbor MICHIGAN 481064353
Attorney of Record	John J. Sullivan

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Perl

From Wikipedia, the free encyclopedia

Perl is a high-level, general-purpose, interpreted, dynamic programming language. Perl was originally developed by Larry Wall in 1987 as a general-purpose Unix scripting language to make report processing easier.^[2] Since then, it has undergone many changes and revisions and become widely popular amongst programmers. Larry Wall continues to oversee development of the core language, and its upcoming version, Perl 6. Perl borrows features from other programming languages including C, shell scripting (sh), AWK, and sed.^[3] The language provides powerful text processing facilities without the arbitrary data length limits of many contemporary Unix tools,^[4] facilitating easy manipulation of text files. Perl gained widespread popularity in the late 1990s as a CGI scripting language, in part due to its parsing abilities.^[5]

In addition to CGI, Perl is used for graphics programming, system administration, network programming, finance, bioinformatics, and other applications. Perl is nicknamed "the Swiss Army chainsaw of programming languages" due to its flexibility and power.^[6] It is also referred to as the "duct tape that holds the Internet together", in reference to its ubiquity and perceived inelegance.^[7]

Contents

- 1 History
 - 1.1 Early Perl versions
 - 1.2 Early Perl 5
 - 1.3 2000–present
 - 1.4 Name
 - 1.5 Camel symbol
 - 1.5.1 Onion symbol
- 2 Overview
 - 2.1 Features
 - 2.2 Design
 - 2.3 Applications
 - 2.4 Implementation
 - 2.5 Availability
 - 2.5.1 Windows

Perl



Paradigm	multi-paradigm: functional, imperative, object-oriented (class-based), Reflective
Appeared in	1987
Designed by	Larry Wall
Developer	Larry Wall
Stable release	5.12.3 (January 21, 2011)
Preview release	5.13.9 (January 20, 2011)
Typing discipline	Dynamic
Influenced by	AWK, Smalltalk 80, Lisp, C, C++, sed, Unix shell, Pascal
Influenced	Python, PHP, Ruby, ECMAScript, LPC, Windows PowerShell, JavaScript, Falcon
Implementation language	C
OS	Cross-platform
License	GNU General Public License or Artistic License ^[1]
Usual file extensions	.pl .pm
Website	perl.org (http://www.perl.org)

 Perl Programming at Wikibooks



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Word Mark	MATHEMATICA
Goods and Services	IC 009. US 021 023 026 036 038. G & S: computer programs featuring symbolic programming language for numerical, symbolic and graphical computation. FIRST USE: 19871031. FIRST USE IN COMMERCE: 19871031
Mark Drawing Code	(1) TYPED DRAWING
Serial Number	76263348
Filing Date	May 25, 2001
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	May 28, 2002
Registration Number	2609439
Registration Date	August 20, 2002
Owner	(REGISTRANT) WOLFRAM RESEARCH, INC. CORPORATION DELAWARE 100 Trade Center Drive Champaign ILLINOIS 618207237
Attorney of Record	Gregory J. Chinlund
Prior Registrations	1546899
Type of Mark	TRADEMARK
Register	PRINCIPAL-2(F)
Affidavit Text	SECT 15. SECT 8 (6-YR).
Live/Dead Indicator	LIVE

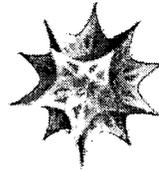
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Mathematica

From Wikipedia, the free encyclopedia

Mathematica is a computational software program used in scientific, engineering, and mathematical fields and other areas of technical computing. It was conceived by Stephen Wolfram and is developed by Wolfram Research of Champaign, Illinois.^{[2][3]}

Mathematica



Developer(s)	Wolfram Research
Initial release	June 23, 1988 ^[1]
Stable release	8.0.0 (http://en.wikipedia.org/w/index.php?title=Template:Latest_stable_software_release/Mathematica&action=edit) (November 15, 2010) [+/- (http://en.wikipedia.org/w/index.php?title=Template:Latest_stable_software_release/Mathematica&action=edit&preload=Template:LSR/syntax)]
Preview release	[+/- (http://en.wikipedia.org/w/index.php?title=Template:Latest_preview_software_release/Mathematica&action=edit&preload=Template:LSR/syntax)]
Written in	Mathematica, C
Platform	Cross-platform (list) (http://www.wolfram.com/products/mathematica/platforms/)
Available in	English, Chinese and Japanese.
Type	Computer algebra, numerical computations, Information visualization, statistics, user interface creation
License	Proprietary
Website	www.wolfram.com/products/mathematica (http://www.wolfram.com/products/mathematica/)

Contents

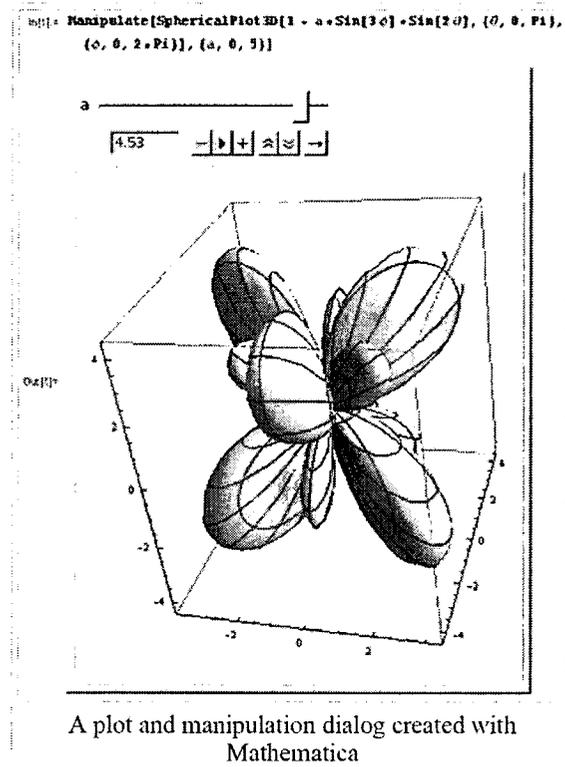
- 1 Features
- 2 Interface
- 3 High-performance computing
- 4 Development
- 5 Connections with other applications
- 6 Computable data
- 7 Licensing
- 8 Platform availability
- 9 Version history
- 10 See also
- 11 References

- 12 External links

Features

Features of Mathematica include:^[4]

- Elementary mathematical function library
- Special mathematical function library
- Matrix and data manipulation tools including support for sparse arrays
- Support for complex number, arbitrary precision, interval arithmetic and symbolic computation
- 2D and 3D data and function visualization and animation tools
- Solvers for systems of equations, diophantine equations, ODEs, PDEs, DAEs, DDEs and recurrence relations
- Numeric and symbolic tools for discrete and continuous calculus
- Multivariate statistics libraries including fitting, hypothesis testing, and probability and expectation calculations on over 100 distributions.
- Constrained and unconstrained local and global optimization
- Programming language supporting procedural, functional and object oriented constructs
- Toolkit for adding user interfaces to calculations and applications
- Tools for image processing^[5] and morphological image processing including image recognition
- Tools for visualizing and analysing graphs
- Tools for combinatoric problems
- Tools for text mining
- Data mining tools such as cluster analysis, sequence alignment and pattern matching
- Number theory function library
- Tools for financial calculations including bonds, annuities, derivatives, options etc.
- Group theory functions
- Libraries for Wavelet analysis on sounds, images and data
- Control systems libraries
- Continuous and discrete integral transforms transforms
- Import and export filters for data, images, video, sound, CAD, GIS^[6], document and biomedical formats
- Database collection for mathematical, scientific, and socio-economic information and access to WolframAlpha data and computations
- Notebook interface for review and re-use of previous inputs and outputs including graphics and text annotations
- Technical word processing including formula editing and automated report generating





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[BOTTOM](#)
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[CURR LIST](#)
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[PREV DOC](#)
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Word Mark **CURL**
Goods and Services IC 009. US 021 023 026 036 038. G & S: **computer** software for software development, for developing, compiling or debugging other software, for the deployment or utilization of electronic communications networks, or for delivery of content by means of electronic communications networks [; **computer hardware**]. FIRST USE: 19991229. FIRST USE IN COMMERCE: 19991229

 IC 042. US 100 101. G & S: **computer** software design and development services. FIRST USE: 20020531. FIRST USE IN COMMERCE: 20020715
Mark Drawing Code (1) TYPED DRAWING
Serial Number 75487363
Filing Date May 18, 1998
Current Filing Basis 1A
Original Filing Basis 1B
Published for Opposition December 21, 1999
Registration Number 2747475
Registration Date August 5, 2003
Owner (REGISTRANT) Curl Corporation CORPORATION DELAWARE 400 TECHNOLOGY SQUARE 8TH FLOOR Cambridge MASSACHUSETTS 02139

 (LAST LISTED OWNER) SUMISHO COMPUTER SYSTEMS CORPORATION CORPORATION JAPAN HARUMI ISLAND TRITON SQUARE OFFICE TOWER Z, 1-8-12, HARUMI, CHU-KU, TOKYO 104-6241 JAPAN 0

Assignment

Recorded ASSIGNMENT RECORDED
Attorney of Record Jonathan M. Gelchinsky
Type of Mark TRADEMARK, SERVICE MARK
Register PRINCIPAL
Affidavit Text SECT 15, SECT 8 (6-YR).
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Curl (programming language)

From Wikipedia, the free encyclopedia

Curl is a reflective object-oriented programming language for interactive web applications whose goal is to provide a smoother transition between formatting and programming. It makes it possible to embed complex objects in simple documents without having to switch between programming languages or development platforms.

The language attempts to address a long-standing problem: the different building blocks that make up any modern web document most often require wildly different methods of implementation: different languages, different tools, different frameworks, often completely different teams. The final—and often most difficult—hurdle has been getting all of these blocks to communicate with each other in a consistent manner. Curl attempts to side-step these problems by providing a consistent syntactical and semantic interface at all levels of web content creation: from simple HTML to complex object-oriented programming.

Curl combines text markup (as in HTML), scripting (as in JavaScript), and heavy-duty computing (as in Java, C#, or C++) within one unified framework. It is used in a range of internal enterprise, B2B, and B2C applications.

Curl is a markup language like HTML—that is, plain text is shown as text; at the same time, Curl includes an object-oriented programming language that supports multiple inheritance. Curl applications are not required to observe the separation of information, style, and behavior that HTML, CSS, and JavaScript have imposed, although that style of programming can be used in Curl if desired.

While the Curl language can be used as an HTML replacement for presenting formatted text, its capabilities range all the way to those of a compiled, strongly typed, object-oriented system programming language.^[1] Both the authoring (HTML-level) and programming constructs of Curl can be extended in user code. The language is designed so Curl applications can be compiled to native code of the client machine by a just-in-time compiler and run at high speed.

Curl applets are viewed using the Curl RTE, a runtime environment with a plugin for web browsers. Currently, it is supported on Microsoft Windows, Linux, and Mac OS X.

Curl has had a feature of detached applets

(<http://developers.curl.com/userdocs/docs/en/dguide/detached.html>) for several years, which is a web deployed applet which runs on the user's desktop independent of a browser window much as in Silverlight 3 and Adobe AIR. See also Site-specific browser. Curl applets can also be written so that they will run off-line when disconnected from the network (occasionally-connected computing (http://www.curl.com/solutions_computing.php)). In fact, the Curl IDE is an application written in Curl.

Curl



Paradigm	multi-paradigm: object-oriented, markup
Appeared in	1998
Designed by	Steve Ward, MIT
Developer	Curl, Inc. & Sumisho Computer Systems Corp.
Stable release	7.0.0 (2009-05-07)
Typing discipline	strong
Dialects	none
Influenced by	HTML, JavaScript, Lisp
OS	Cross-platform: Windows, Linux, Mac OS X
Website	http://www.curl.com/ Curl at Wikibooks



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Word Mark	CINCOM SMALLTALK
Goods and Services	IC 009. US 021 023 026 036 038. G & S: Computer software to build programming applications in any field using an object oriented environment providing instant binary portable cross-platform application development. FIRST USE: 20010321. FIRST USE IN COMMERCE: 20010321
Mark Drawing Code	(3) DESIGN PLUS WORDS, LETTERS, AND/OR NUMBERS
Design Search Code	01.09.03 - Moons (orbiting a planet); Planetary Rings; Solar system 16.01.01 - Antennas; Radio antennas; Satellite dishes; Television antennas, roof and rabbit ears 26.17.13 - Letters or words underlined and/or overlined by one or more strokes or lines; Overlined words or letters; Underlined words or letters
Serial Number	76456258
Filing Date	September 26, 2002
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	June 1, 2004
Registration Number	2876171
Registration Date	August 24, 2004
Owner	(REGISTRANT) Cincom Systems, Inc. CORPORATION OHIO 55 Merchant Street Cincinnati

OHIO 452463732
Assignment Recorded ASSIGNMENT RECORDED
Attorney of Record Patricia B. Hogan, Esq
Prior Registrations 1062487;1935826;2338309
Type of Mark TRADEMARK
Register PRINCIPAL
Live/Dead Indicator LIVE

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Smalltalk

From Wikipedia, the free encyclopedia

Smalltalk is an object-oriented, dynamically typed, reflective programming language. Smalltalk was created as the language to underpin the "new world" of computing exemplified by "human-computer symbiosis."^[1] It was designed and created in part for educational use, more so for constructionist learning, at the Learning Research Group (LRG) of Xerox PARC by Alan Kay, Dan Ingalls, Adele Goldberg, Ted Kaehler, Scott Wallace, and others during the 1970s.

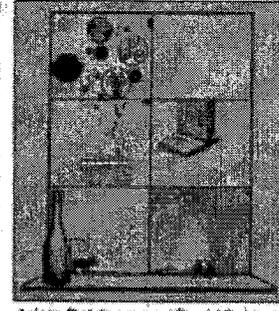
The language was first generally released as Smalltalk-80. Smalltalk-like languages are in continuing active development, and have gathered loyal communities of users around them. ANSI Smalltalk was ratified in 1998 and represents the standard version of Smalltalk.^[2]

Contents

- 1 History
- 2 Influences
- 3 Object-oriented programming
- 4 Reflection
- 5 Syntax
 - 5.1 Literals
 - 5.2 Variable declarations
 - 5.3 Assignment
 - 5.4 Messages
 - 5.5 Expressions
 - 5.6 Code blocks
- 6 Control structures
- 7 Classes
 - 7.1 Methods
 - 7.2 Instantiating classes
- 8 Hello World example
- 9 Image-based persistence
- 10 Level of access
- 11 Just-in-time compilation
- 12 List of implementations
- 13 References
- 14 Further reading
- 15 External links

Smalltalk

SMALLTALK-80 THE LANGUAGE AND ITS IMPLEMENTATION



Adele Goldberg and David Robson

Smalltalk-80: The Language and its

Implementation, a.k.a. the "Blue book", a seminal book on the language

Paradigm	object-oriented
Appeared in	1972 (development began in 1969)
Designed by	Alan Kay, Dan Ingalls, Adele Goldberg
Developer	Alan Kay, Dan Ingalls, Adele Goldberg, Ted Kaehler, Scott Wallace, and Xerox PARC
Stable release	Smalltalk-80 version 2 (1980)
Typing discipline	dynamic
Major implementations	Pharo, Squeak, GNU Smalltalk, VisualWorks, Dolphin Smalltalk, VA Smalltalk
Influenced by	Lisp, Simula, Logo, Sketchpad
Influenced	Objective-C, Self, Java, PHP >=5, Logtalk, Dylan, AppleScript, Lisaac, NewtonScript, Python, Ruby, Scala, Perl 6, Common Lisp



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ATEJI

Word Mark ATEJI

Translations The foreign wording in the mark translates into English as "assigned characters".

Goods and Services IC 009. US 021 023 026 036 038. G & S: Computer software development tools. FIRST USE: 20050525. FIRST USE IN COMMERCE: 20071103

IC 035. US 100 101 102. G & S: On-line retail store services featuring software; Retail store services featuring software. FIRST USE: 20070525. FIRST USE IN COMMERCE: 20071103

IC 042. US 100 101. G & S: Computer software design, computer programming, or maintenance of computer software. FIRST USE: 20050525. FIRST USE IN COMMERCE: 20071103

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Serial Number 77000923

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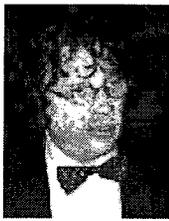
Published for Opposition May 8, 2007

Registration Number 3402349
Registration Date March 25, 2008
Owner (REGISTRANT) Ateji CORPORATION FRANCE 14-16 Rue Soleillet Paris FRANCE 75020
Type of Mark TRADEMARK. SERVICE MARK
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Patrick Viry



After a PhD in computer science at INRIA, Patrick pursued an academic carrier as a researcher at Kyoto University. He moved towards industry, first by managing R&D projects for the Japanese department of technology (MITI), then as a software architect at a major French software vendor. He is an expert in both language engineering and computation models for parallel programming. When not coding, he teaches Japanese language. He founded Ateji in 2005 with the goal to make innovative language technologies available to the community.

Last week, the first public release of Ateji PX went live. Here, JAXenter speaks with Ateji founder Patrick Viry about the new language extension and programming environment for multi-core and parallel programming in Java, and the so-called 'multi-core crisis.'

JAXenter: What is Ateji PX?

Patrick Viry: Ateji PX is an extension of the Java language with parallel programming primitives. Unlike library or preprocessing approaches, this makes parallel programming simple, intuitive and easy to learn.

JAXenter: The release announcement refers to the 'multi-core crisis.' What is this crisis, and how does Ateji PX help overcome it?

Patrick Viry: The term "multi-core crisis" has been coined by chip makers. A couple of years ago, the race for ever faster chips abruptly stopped because they would dissipate too much heat and melt down. Since it wasn't possible anymore to double the speed of processors every 12 to 18 months, chip makers started to double the number of cores on the same silicon die.

Nothing really difficult from a hardware point of view, but a huge software revolution : if you don't make your programs parallel, they will be able to use only one out of many available cores. Until now, it was enough to wait a couple of years to see your application run faster, not anymore. This has been called "the end of the free lunch" for software developers.

The term "multi-core" crisis refers to the lack of tools and languages for writing parallel programs, and parallelize existing code.

JAXenter: What existing languages and tools does Ateji PX leverage?

Patrick Viry: Ateji PX builds upon Java, the most popular language nowadays, and the Eclipse IDE. If you know Java and Eclipse, you'll be able to write your first Ateji PX parallel program within a half day.

JAXenter: Which parallel patterns are supported?

Patrick Viry: With only a handful of well designed parallel constructs, Ateji PX is able to express a wide range of parallel patterns:

- data parallelism (running the same operation on a large number of data elements, typically used in simulation and high-performance computing.)
- task parallelism (decomposing a problem into concurrent tasks, typically used in server applications.)
- recursive parallelism (decomposing into smaller and smaller tasks.)
- speculative parallelism (starting a computation before needing the result.)
- the Actor model (independent actors reacting to input messages.)
- data flow (think boxes with input and output wires.)
- stream computing (think database tuples flowing in these wires), on which Google's MapReduce algorithm is based.

While different tools had been devised for these different patterns, Ateji PX provides all of them within one single tool.

JAXenter: What are the advantages of parallel programming?

Patrick Viry: Most people get interested into parallel programming because it is the key to leveraging the power of multicore computers. But there are also other reasons for doing parallel programming:

- Green computing : parallel code on multicore hardware uses less power than sequential code. This is important for embedded systems (such as phones) that heavily rely on battery, and for large data centers that need to contribute to lowering global emissions.
- Responsive user interfaces and responsive servers : if the code is not parallel, it gets unresponsive, stuck or underperformant. Being able to write parallel code in an easy and intuitive way is an important step towards having "small parallel islands" all over the code.
- Algorithmic description : some algorithms require statements such as "read both input 1 and input 2, in whatever order." This is simply not possible to express in sequential languages such as Java. The programmer must order arbitrarily the statements (such as "first read input 1, then read input 2,") at the risk of making the program block.

Jessica Thornsby

References

- <http://www.gotw.ca/publications/concurrency-ddj.htm>
- <http://jaxenter.com/new-multi-core-language-extension-and-programming-environmen...>

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SYSML

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	IC 016. US 002 005 022 023 029 037 038 050. G & S: Printed publications, namely, pamphlets, newsletters, instructional materials, and manuals pertaining to computer software industry technical standards, specifications, information technology, computer programming and computer programming languages, platforms and software development. FIRST USE: 20060731. FIRST USE IN COMMERCE: 20060731
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Trademark Search Facility Classification Code	LETTER-3-OR-MORE SYSML Combination of three or more letters as part of the mark
Serial Number	77692947
Filing Date	March 17, 2009
Current Filing Basis	1A
Original Filing Basis	1A

Published for Opposition October 5, 2010
Registration Number 3891789
Registration Date December 21, 2010
Owner (REGISTRANT) Object Management Group, Inc. non-profit corporation DELAWARE 140 Kendrick Street, Bldg., A Suite 300 Needham MASSACHUSETTS 02494
Attorney of Record Deborah J. Peckham
Type of Mark TRADEMARK
Register PRINCIPAL
Live/Dead Indicator LIVE

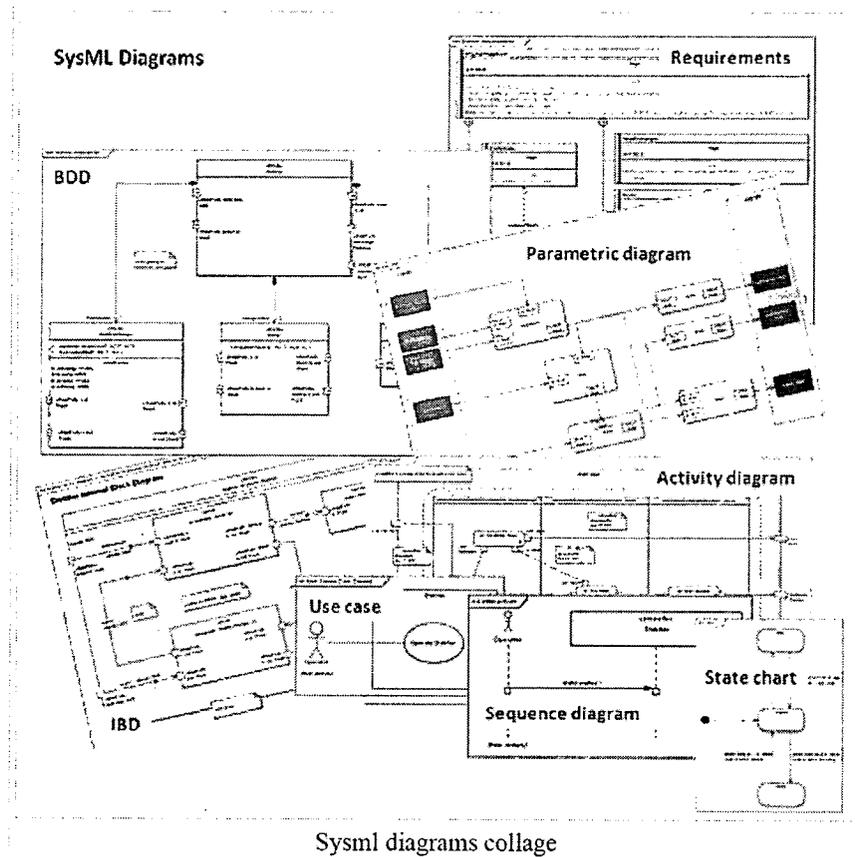
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Systems Modeling Language

From Wikipedia, the free encyclopedia

The **Systems Modeling Language** (**SysML**) is a general -purpose modeling language for systems engineering applications. It supports the specification, analysis, design, verification and validation of a broad range of systems and systems-of-systems. SysML was originally developed by an open source specification project, and includes an open source license for distribution and use. ^[1] SysML is defined as an extension of a subset of the Unified Modeling Language (UML) using UML's profile mechanism.



Contents

- 1 Introduction
- 2 History
 - 2.1 OMG SysML
- 3 Tools
 - 3.1 Model Exchange
- 4 See also
- 5 References
- 6 Further reading
- 7 External links



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NEWLISP

Word Mark NEWLISP
Goods and Services IC 009. US 021 023 026 036 038. G & S: Computer software development tools. FIRST USE: 19910900. FIRST USE IN COMMERCE: 20050407
Standard Characters Claimed
Mark Drawing Code (4) STANDARD CHARACTER MARK
Serial Number 78771750
Filing Date December 12, 2005
Current Filing Basis 1A
Original Filing Basis 1A
Published for Opposition February 20, 2007
Registration Number 3239152
Registration Date May 8, 2007
Owner (REGISTRANT) Mueller, Lutz INDIVIDUAL FED REP GERMANY 951 NW 10th Street Boca Raton FLORIDA 33486
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newLISP

From Wikipedia, the free encyclopedia
(Redirected from Newlisp)

newLISP is an open source scripting language in the Lisp family of programming languages developed by Lutz Mueller and released under the GNU General Public License.

Contents

- 1 History
- 2 Philosophy
- 3 The language
 - 3.1 Contexts
 - 3.2 Scoping
 - 3.3 Memory management
 - 3.4 GUI options
 - 3.5 Stand-alone binaries
 - 3.6 Interaction with shared libraries
- 4 References
- 5 External links

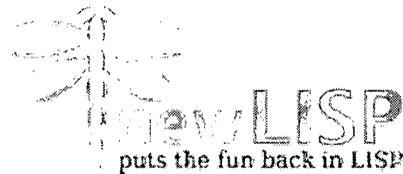
History

newLISP originated in 1991 and was originally developed on a Sun-4 workstation.^[1] It later moved to Windows 3.0, where version 1.3 was released on CompuServe around 1993, then became available as a Windows GUI graphics-capable application and a DOS console application (both 16-bit). In 1995, with the release of Windows 95, newLISP moved to 32-bit.

In April 1999, newLISP was ported to Linux; some of its core algorithms were rewritten, and all Windows-specific code eliminated. NewLISP was released as an Open Source project licensed under the GPL, and development on Windows stopped after version 6.0.25. During the first half of 2001, newLISP was ported back to Windows on the Cygwin platform without graphics capabilities. A multi-platform Tcl/Tk frontend named newLISP-tk was released around version 6.3.0, during the second half of 2001. 64-bit precision was introduced for integer arithmetic and for some operations on files in version 9.0 in 2006.

Since the release of 6.5 in mid 2002, development has been very active, and many new features have been added.

newLISP



Paradigm	Multi-paradigm
Appeared in	1991
Designed by	Lutz Mueller
Developer	Lutz Mueller of Nuevatec
Stable release	10.2.8 (May 20, 2010)
Preview release	10.2.17 (November 16, 2010)
OS	Cross-platform
License	GNU General Public License
Website	www.newlisp.org (http://www.newlisp.org)



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NU

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Goods and Services	IC 009. US 021 023 026 036 038. G & S: Computer software, namely, a computer programming language. FIRST USE: 20070811. FIRST USE IN COMMERCE: 20071001
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Trademark Search Facility Classification Code	LETS-2 NU Two letters or combinations of multiples of two letters
Serial Number	77303558
Filing Date	October 13, 2007
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	April 1, 2008
Registration Number	3448787
Registration Date	June 17, 2008
Owner	(REGISTRANT) Neon Design Technology, Inc. CORPORATION CALIFORNIA Suite B-2 180 Second Street Los Altos CALIFORNIA 94022

Attorney of Record Benjamin A. Costa
Type of Mark TRADEMARK
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NuKit

Monday November 8, 2010

One of my favorite uses of Nu is for building web apps and APIs for mobile apps. To support that, I've evolved a collection of frameworks that support serving and making HTTP requests, generating markup, serializing data, and accessing databases. To keep things flexible, each framework can be built separately and is in a separate git repository. But to make them simple to use, I've created a binary installer that installs my favorite components from a single package.

To get it, visit the NuKit page.

Nu Seems Stable (by Jason Grossman)

Wednesday December 9, 2009

I've been nagging Tim to say something about the stability of recent releases of Nu, so he asked me to write this.

Nu is a new language (no pun intended — see below for the etymology of the name Nu). It hasn't yet formed the basis of an impressive suite of stable software, and you'd think hard before using it to write anything mission-critical.

Despite that, it is actually rather stable. Let me say more about why.

More...

What's Nu?

Nu is an interpreted object-oriented language. Its syntax comes from Lisp, but Nu is semantically closer to Ruby than Lisp. Nu is implemented in Objective-C and is designed to take full advantage of the Objective-C runtime and the many mature class libraries written in Objective-C. Nu code can fully interoperate with code written in Objective-C; messages can be sent to and from objects with no concern for whether those messages are implemented in Objective-C or Nu.

Nu currently requires Mac OS X version 10.5 or greater and runs on PowerPC and Intel systems. Ports to Linux and the Apple iPhone are also available; contact me directly or visit my blog for more details.

vi tips for Nu

Sunday November 22, 2009

I'm collecting some tips for using the vim code editor with Nu.

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twitter.com/importantshock
...who have we missed?

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Programming Nu**

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Git Repositories

github.com/timburks/nu
github.com/timburks/programming

News

November 2010

NuKit

December 2009

Nu Seems Stable (by Jason Grossman)

November 2009

vi tips for Nu

Nu-0.4.0

January 2009

Macros

December 2008

Nu-0.3.3

June 2008

Nu-0.3.2

May 2008

Cocoa Programming with Nu

March 2008

Nu-0.3.1

Announcing Nu: The Video

Nu on github

Linux and the iPhone

Apache License, v. 2.0

February 2008

Nu-0.3.0

December 2007

NuPagePacker

Nu-0.2.4

Nu-0.2.3

November 2007

Nu-0.2.2

A Delicious Nu Screencast

Nu-0.2.1

October 2007

New Literal Forms in Nu

Escape Sequences in Nu

Strings

Closures in Nu



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LUA

Word Mark	LUA
Translations	The foreign wording in the mark translates into English as "moon".
Goods and Services	IC 009. US 021 023 026 036 038. G & S: Computer operating programs; downloadable computer programs and computer programs recorded on data media for computer software development and for implementing computer programming languages
Standard Characters Claimed	
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Serial Number	77423725
Filing Date	March 17, 2008
Current Filing Basis	1B
Original Filing Basis	1B
Published for Opposition	September 7, 2010
Owner	(APPLICANT) Faculdades Catolicas ASSOCIATION BRAZIL Rua Marquês de São Vicente, 225 - Gávea Rio de Janeiro BRAZIL 22451-900
Attorney of Record	Laurence P. Colton
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Here is a summary of all things Lua: what it is, why you should use it, where it comes from, what it means, and how you can support it.

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.

Why choose Lua?

Lua is a proven, robust language

Lua has been used in many industrial applications (e.g., Adobe's Photoshop Lightroom), with an emphasis on embedded systems (e.g., the Ginga middleware for digital TV in Brazil) and games (e.g., World of Warcraft). Lua is currently the leading scripting language in games. Lua has a solid reference manual and there are several books about it. Several versions of Lua have been released and used in real applications since its creation in 1993. Lua featured in HOPL III, the Third ACM SIGPLAN History of Programming Languages Conference, in June 2007.

Lua is fast

Lua has a deserved reputation for performance. To claim to be "as fast as Lua" is an aspiration of other scripting languages. Several benchmarks show Lua as the fastest language in the realm of interpreted scripting languages. Lua is fast not only in fine-tuned benchmark programs, but in real life too. A substantial fraction of large applications have been written in Lua.

Lua is portable

Lua is distributed in a small package and builds out-of-the-box in all platforms that have an ANSI/ISO C compiler. Lua runs on all flavors of Unix and Windows, and also on mobile devices (such as handheld computers and cell phones that use BREW, Symbian, Pocket PC, etc.) and embedded microprocessors (such as ARM and Rabbit) for applications like Lego MindStorms.

For specific reasons why Lua is a good choice also for constrained devices, read this summary by Mike Pall. See also a poster created by Timm Müller.

Lua is embeddable

Lua is a fast language engine with small footprint that you can embed easily into your application. Lua has a simple and well documented API that allows strong integration with code written in other languages. It is easy to extend Lua with libraries written in other languages. It is also easy to extend programs written in other languages with Lua. Lua has been used to extend programs written not only in C and C++, but also in Java, C#, Smalltalk, Fortran, Ada, Erlang, and even in other scripting languages, such as Perl and Ruby.

Lua is powerful (but simple)

A fundamental concept in the design of Lua is to provide *meta-mechanisms* for implementing features, instead of providing a host of features directly in the language. For example, although Lua is not a pure object-oriented language, it does provide meta-mechanisms for implementing classes and inheritance. Lua's meta-mechanisms bring an economy of concepts and keep the language small, while allowing the semantics to be extended in unconventional ways.

Lua is small

Adding Lua to an application does not bloat it. The tarball for Lua 5.1.4, which contains source code, documentation, and examples, takes 212K compressed and 860K uncompressed. The source contains around 17000 lines of C. Under Linux, the Lua interpreter built with all standard Lua libraries takes 153K and the Lua library takes 203K.

Lua is free

Lua is free open-source software, distributed under a very liberal license (the well-known MIT license). It may be used for any purpose, including commercial purposes, at absolutely no cost. Just download it and use it.

Where does Lua come from?

Lua is designed, implemented, and maintained by a team at PUC-Rio, the Pontifical Catholic University of Rio de Janeiro in Brazil. Lua was born and raised in Tecgraf, the Computer Graphics Technology Group of PUC-Rio, and is now housed at Lablua. Both

Tecgraf and Lablua are laboratories of the Department of Computer Science of PUC-Rio.

What's in a name?

"Lua" (pronounced **LOO-ah**) means "Moon" in Portuguese. As such, it is neither an acronym nor an abbreviation, but a noun. More specifically, "Lua" is a name, the name of the Earth's moon and the name of the language. Like most names, it should be written in lower case with an initial capital, that is, "Lua". Please do not write it as "LUA", which is both ugly and confusing, because then it becomes an acronym with different meanings for different people. So, please, write "Lua" right!

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FAN

Word Mark FAN

Goods and Services IC 009. US 021 023 026 036 038. G & S: Computer software featuring a programming language and APIs (Application Programming Interface) for use in the development and execution of computer programs on computers, computer hardware, computer peripherals, embedded devices, portable devices, remote devices, wireless computer networks, wireless device networks, computer networks, device networks and global communications networks. FIRST USE: 20050928. FIRST USE IN COMMERCE: 20050928

Standard Characters Claimed

Mark Drawing Code (4) STANDARD CHARACTER MARK

Serial Number 77094170

Filing Date January 30, 2007

Current Filing Basis 1A

Original Filing Basis 1A

Published for Opposition January 15, 2008

Registration Number 3404342

Registration Date April 1, 2008

Owner (REGISTRANT) Frank, Brian INDIVIDUAL UNITED STATES 1513 Hanover Avenue Richmond VIRGINIA 23220

Attorney of

Record Robert P. Henley
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```
// Hello from Fantom!
class HelloWorld
{
    static void main()
    {
        echo("Hello, World!")
    }
}
```

[Download Fantom](#)
Build 1.0.57[Hg Repo](#)

The Language Formerly Known as Fan

Portability

Write code portable to the Java VM, .NET CLR, and JavaScript in the browser.

Familiar Syntax

Java and C# programmers will feel at home with Fantom's evolutionary syntax.

Mixins

Interfaces but with implementation.

Concurrency

Tackle concurrency with built-in immutability and actor model.

Object Oriented

Everything subclasses from Obj. Value types when you need the performance.

Functional

Functions and closures are baked in.

Static and Dynamic Typing

Don't like the extremes - take the middle of the road.

Serialization

Built-in "JSON like" serialization syntax makes Fantom ideal for declarative programming too.

Elegant APIs

We're quite obsessive about providing all the key features required for a standard library, but with much less surface area than the APIs found in Java or .NET.

REST

URI literals and a unified namespace of resources identified with URIs.

[Learn More About Fantom](#)

Fantom (programming language)

From Wikipedia, the free encyclopedia

Fantom is a general purpose object-oriented programming language that runs on the JRE, .NET CLR, and Javascript. The language supports functional programming through closures and concurrency through the Actor model. Fantom takes a "middle of the road" approach to its type system, blending together aspects of both static and dynamic typing. Like C# and Java, Fantom uses a curly brace syntax.

Contents

- 1 Typing
- 2 Pods
- 3 Fantom Widget Toolkit
- 4 Name change
- 5 See also
- 6 References
- 7 References
- 8 External links

Fantom

Paradigm	multi-paradigm
Appeared in	2007
Developer	Brian Frank, Andy Frank
Stable release	1.0.57 (January 6, 2011)
Typing discipline	static, dynamic
Influenced by	C#, Java, Scala, Ruby, Erlang
Website	www.fantom.org (http://www.fantom.org/)

Typing

Fantom's type system is simple by design. All variables are statically typed, as they are in C# and Java. Fantom rejects generic types due to their complexity, but it does have a set of built-in generic types: `List`, `Map`, and `Func`. Fantom can also take on the feel of a dynamically typed language through dynamic calls and automatic downcasting. Fantom has an easy to use reflection API and metaprogramming capabilities.

Pods

In Fantom, the unit of deployment is called a pod. Pods take on the role of namespaces, packages, and modules. They are stored as .pod files, which are zip files containing the FCode (the Fantom bytecode), the documentation, and resource files necessary to run the pod. A pod can define any number of types for use in other libraries and applications. A pod name fully qualifies a type name. For example, `fwt::Widget` is distinct from `webapp::Widget`. If a pod contains a type named `Main`, then it can be executed on the command line with: `fan <podName>`

The Fantom build system can package a set of Pods into a Jar archive through `build::JarDist`.



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ptilde

Word Mark PTILDE

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IC 042. US 100 101. G & S: Computer diagnostic and consulting services for using - computer programming language, computer programming grammar, computer program for developing other computer programs, computer program for developing other computer program components. FIRST USE: 20071220. FIRST USE IN COMMERCE: 20071220

Standard Characters Claimed

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Serial Number 77081951

Filing Date January 12, 2007

Current Filing Basis 1A

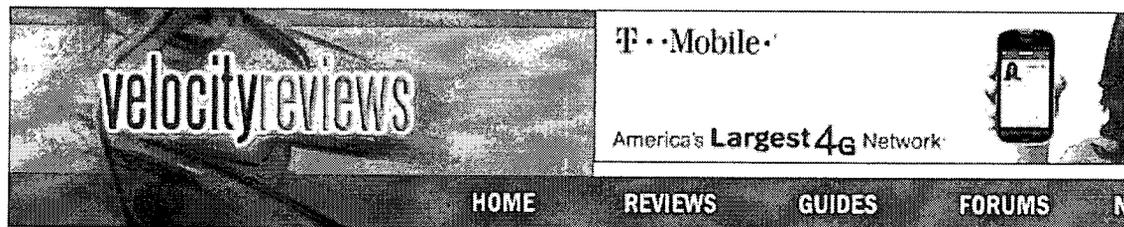
Original Filing Basis 1B

Published for August 21, 2007

Opposition
Registration Number 3531615
Registration Date November 11, 2008
Owner (REGISTRANT) Alderson, David H. INDIVIDUAL UNITED STATES 6250 Cape Hatteras Way, #6 St. Petersburg FLORIDA 33702
Attorney of Record Charles L. Thoeming
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C++ - P~(ptilde) released, new scripting language with novel regex

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ptilderegex

Posts: n/a

P~(ptilde) released, new scripting language with novel regex

P~ (pronounced "ptilde") is a new Java friendly scripting language. The principle reason for creating it was to offer a new and more powerful approach to creating regular expressions. Unlike all other regex engines, P~ does not use the Perl-compatible metacharacter syntax, instead using algebraic syntax for regex composition. This decision opens the door to more powerful side-effects than even possible in Perl, but preserving the readability and maintainability of P~ regexes. In other regex engines, your regular expressions become hard to read as the difficulty of the problem increases. Not so in P~.

While P~ makes it easy to grapple with matching and transformation problems that are hard for even Perl programmers, its basic grammar is Java-like, more so than even Groovy. This means that Java programmers can quickly learn the basic grammar forms.

P~ is also Java friendly because you can import Java classes within your scripts, and use their public apis just like in your Java code. All you have to do is make sure that when you launch the Ptilde

scripting application, you include the appropriate Java libraries (jar files) in the classpath.

Finally, P~ is Java friendly because its engine is a Java library. Thus, if a Java programmer has a tough matching or transformation problem, solve it first with a P~ script, using the standalone application shell and the novel P~ regex grammars; then make this script available to your Java application as either a file or a resource, and easily invoke it from your Java class. You are allowed to pass arguments and return a result from a scriptlet!

If this sounds interesting, take a look at the home page for the documentation, which is found at <http://www.ptilde.com>. Start with the Tutorial which will guide you through first the basic grammar of Ptilde and then through the regex grammar forms.

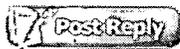


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MATA

Word Mark	MATA
Translations	The English translation of the word "Mata" is "It Kills" and "Subdued".
Goods and Services	IC 009. US 021 023 026 036 038. G & S: Computer software development tools; Computer software for a matrix programming language for use in statistics and numerical analysis. FIRST USE: 20050404. FIRST USE IN COMMERCE: 20050404
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Serial Number	78778713
Filing Date	December 21, 2005
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	August 29, 2006
Registration Number	3171323
Registration Date	November 14, 2006
Owner	(REGISTRANT) Statacorp, L.P. StataCorp GP, LLC, a limited liability company organized under the laws of Texas LIMITED PARTNERSHIP TEXAS 4905 Lakeway Drive College Station TEXAS 77845
Attorney of Record	James E. Hudson III

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This page contains only historical information and is not about the current release of Stata. Please see our [Stata 11](#) page for information on the current version of Stata.

Matrix language

Mata is a full-blown programming language that compiles what you type into byte-code, optimizes it, and executes it fast. Behind the scenes, many of the new features of Stata 9, such as linear mixed models and multinomial probit, were written in Mata. You can use Mata to implement big systems, or you can use it interactively.

To enter Mata, type `mata` at Stata's dot prompt. To exit, type `end` at Mata's colon prompt:

```
. mata
_____ mata (type end to exit) _____
: sqrt(-4)
.
: sqrt(-4+0i)
  2i
: end
```

Mata supports real and complex numbers, binary and text strings (up to 2,147,483,647 characters long), and, for serious programming problems, even pointers!

Mata uses LAPACK routines for its advanced matrix features, such as Cholesky decomposition, LU decomposition, QR decomposition, SV decomposition, eigenvalues and eigenvectors, and solvers and inverters.

Mata supports matrices that are views onto, not copies of, the data. Say you have loaded a dataset of 200,000 observations and 150 variables, and you need a matrix of 80 of those variables in 180,000 of the observations. Rather than requiring 110 megabytes, Mata needs only 640 bytes.

Everybody knows that matrix languages evaluate matrix expressions, such as $b = \text{invsym}(XX)'Xy$, and Mata is no exception. Because of Mata's design, however, it is fast enough to work at the element level. Here is Mata's polynomial solver:

```
numeric rowvector polysolve(numeric vector y, numeric vector x)
{
  numeric rowvector res, c, empty
  real scalar i, j, n

  if (cols(y) != cols(x) | rows(y) != rows(x)) _error(3200)
  if ((n=length(x)) == 0) _error(3200)
  res = (iscomplex(y) | iscomplex(x) ? 0i : 0)
  for (j=1; j<=n; j++) {
    c = (1)
    for (i=1; i<=n; i++) {
      if (i != j) {
        c = polymult(c, (-x[i],1) ./ (x[j]-x[i]))
      }
    }
    res = polyadd(res, y[j] :* c)
  }
  while (res[cols(res)]==0) res = res[1,1 \ 1,cols(res)-1]
  return(res)
}
```

Much of Mata is written in Mata.

Here is how we introduce Mata in the [Mata Reference Manual](#).

help m1 first

Title

[M-1] first — Introduction and first session

Description

Mata is a component of Stata. It is a matrix programming language that can be used interactively or as an extension for `do-`files and `ado-`files. Thus

Stata 9

Highlights

- Mata
- Linear mixed models
- Survey statistics
- Multivariate methods
- Multinomial probit
- More statistics
- Data management
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- Programming
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Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Serial Number	77261996
Filing Date	August 22, 2007
Current Filing Basis	1A
Original Filing Basis	1B
Published for Opposition	April 29, 2008
Registration Number	3466166
Registration Date	July 15, 2008
Owner	(REGISTRANT) BASIS International, Ltd. CORPORATION NEW MEXICO 5901 Jefferson NE Albuquerque NEW MEXICO 871093432
Attorney of Record	Jeffrey D. Myers
Type of Mark Register	TRADEMARK PRINCIPAL

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Barista Overview

BASIS takes a new productivity leap forward in GUI development with the Barista® Application Framework. Barista is BASIS' GUI-only data dictionary-driven development framework and runtime engine. Barista facilitates:

- New GUI application development
- Conversion of CUI applications to GUI
- Modernization of existing GUI applications

Barista imports a BASIS data dictionary and, with little development effort, delivers a functional GUI application running on multiple platforms with a modern GUI look-and-feel, standardized keyboard and mouse navigation, and a built-in SQL-based inquiry engine. Barista delivers enormous productivity gains on both initial product development and, more importantly, on future application maintenance and enhancement tasks.

Barista Components

- User Application Interface
- Extended Data Dictionary
- Form Manager
- Form Designer
- Callpoint Event Editor
- Form Runtime Engine
- SQL Inquiry System
- Menu Designer
- Document Output System
- Role-based Security System

Benefits

- Uses data dictionary-based architecture for tables, forms, and validation rules
- Supports existing BASIS data structures and imports the BASIS data dictionary
- Ensures visual consistency and quality between forms and applications
- Takes advantage of emerging BBJ features and functionality
- Provides ability to link multiple tables and create powerful entry forms
- Easily assembles forms into deployable applications
- Enables existing customized programs to interact with Barista's runtime engine
- Allows developers to reuse existing legacy report and update programs

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BASIS Advantage



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Download Barista with BBj to take full advantage of this new development framework.

1. Go to the BBj and Barista download page.
2. Follow the download instructions, selecting the BBj and Barista as the Optional Files referenced in step 3 of the instructions.

For more information, refer to Barista readme and relnotes and documentation/tutorials.



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Word Mark	ENSCRIPT
Goods and Services	IC 009. US 021 023 026 036 038. G & S: Computer programs that implement an object-oriented computer programming language enabling detailed computer forensic searches for use with forensic data and analysis software. FIRST USE: 20020701, FIRST USE IN COMMERCE: 20030201
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Serial Number	78496163
Filing Date	October 7, 2004
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	October 25, 2005
Registration Number	3045419
Registration Date	January 17, 2006
Owner	(REGISTRANT) Guidance Software Corporation CORPORATION CALIFORNIA 2nd Floor 215 North Marengo Avenue Pasadena CALIFORNIA 91101
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EnCase® v6 EnScript® Programming > Company Overview > Title Not Specified! > EnCase® v6 EnScript® Programming

EnScript® Programming

Course Overview

This hands-on course is designed for students who wish to learn new programming techniques and how to utilize them in order to enhance their investigative techniques. Reinforcing standard programming logic and common techniques, this class focuses on simple EnScript programs while edifying the different data types, operators, program control statements, and data access methods used within the EnScript language. Delivery method: Group -Live.

NASBA defined level: advanced.

EnCASE TRAINING OnDEMAND

Potential students should not be intimidated that EnScript mimics C++ and Java Script, as EnCase software (EnCase) has a much easier programming interface. The syntax of EnScript programming will become clear and natural as the course progresses.

Instructors and students will write EnScripts together. This will be followed by practical exercises and progressive studies. Students will leave with the ability to write simple to intermediate level EnScript programs to automate activities involving examinations of computer systems. This course covers programming concepts including:

CPE Credits 32
Level Expert

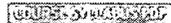
Prerequisite

EnCase® Advanced Computer Forensics as well as some familiarity with any programming language. Advance preparation for this course is not required.

- The history and organization of EnScript
- Introduction to the EnScript interface
- A listing of the latest EnScript types or classes
- The functionality of the EnScript compiler
- The tools necessary for manipulating text
- Utilizing variables and operators
- Creating files, queries and conditions
- Using EnScript programs to search files and bookmark data
- Writing data to local files

Who Should Attend

This live course is intended for investigators with minimal to intermediate computer skills. A basic understanding of the concepts of computer forensics and the EnCase operating environment is required. The class curriculum builds upon the foundation of the EnCase Advanced Computer Forensics or EnCase Enterprise - Phase II course, continuing with a focus on automating computer examinations through writing EnScripts. Advanced programmers may consider taking this course to acclimate themselves with the EnScript programming interface, as well as learning some valuable EnScript tips and tricks.



Tuition

Tuition is \$3,295.00 per student. Government training rate is \$2,294.94 per student. See C/Cbes Details for Actual Tuition Costs

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Word Mark XDIME

Goods and Services IC 009. US 021 023 026 036 038. G & S: SOFTWARE FOR THE DELIVERY OF WEB APPLICATIONS AND/OR DATA SERVICES OF OTHERS TO PERSONAL DIGITAL ASSISTANTS, TELEPHONES, MOBILE PHONES, TELEVISIONS, KIOSKS, COMPUTERS, PERSONAL COMPUTERS AND CASH POINT MACHINES; COMPUTER OPERATING SYSTEMS AND COMPUTER OPERATING PROGRAMS IN THE FIELD OF DELIVERY OF WEB APPLICATIONS AND/OR DATA SERVICES OF OTHERS TO PERSONAL DIGITAL ASSISTANTS, TELEPHONES, MOBILE PHONES, TELEVISIONS, KIOSKS, COMPUTERS, PERSONAL COMPUTERS AND CASH POINT MACHINES; COMPUTER PROGRAMS, NAMELY, PROGRAMMING LANGUAGES IN THE FIELD OF SOFTWARE FOR THE DELIVERY OF WEB APPLICATIONS AND/OR DATA SERVICES OF OTHERS TO PERSONAL DIGITAL ASSISTANTS, TELEPHONES, MOBILE PHONES, TELEVISIONS, KIOSKS, COMPUTERS, PERSONAL COMPUTERS AND CASH POINT MACHINES; INSTRUCTIONAL MATERIALS ON CD-ROMs, AUDIO TAPES, CDs, DVDs, OR DOWNLOADABLE, IN THE FIELD OF SOFTWARE FOR THE DELIVERY OF WEB APPLICATIONS AND/OR DATA SERVICES OF OTHERS TO PERSONAL DIGITAL ASSISTANTS, TELEPHONES, MOBILE PHONES, TELEVISIONS, KIOSKS, COMPUTERS, PERSONAL COMPUTERS AND CASH POINT MACHINES

IC 042. US 100 101. G & S: DESIGN AND DEVELOPMENT OF COMPUTER HARDWARE AND/OR SOFTWARE; SOFTWARE UPDATING SERVICES; SOFTWARE CONSULTING SERVICES; IMPLEMENTATION AND INSTALLATION OF COMPUTER SOFTWARE; MAINTENANCE OF COMPUTER SOFTWARE; RENTAL OF SOFTWARE; CUSTOM DESIGN OF SOFTWARE PACKAGES; DEVELOPMENT OF COMPUTER SOFTWARE APPLICATION SOLUTIONS ALL IN THE FIELD OF THE DELIVERY OF WEB APPLICATIONS AND/OR DATA SERVICES OF OTHERS TO PERSONAL DIGITAL ASSISTANTS, TELEPHONES, MOBILE PHONES, TELEVISIONS, KIOSKS, COMPUTERS, PERSONAL COMPUTERS AND CASH POINT MACHINES

Standard Characters Claimed

Mark Drawing Code (4) STANDARD CHARACTER MARK
Serial Number 78559639
Filing Date February 3, 2005
Current Filing Basis 44E
Original Filing Basis 1B;44D
Published for Opposition January 2, 2007
Registration Number 3219405
Registration Date March 20, 2007
Owner (REGISTRANT) Volantis Systems Limited CORPORATION UNITED KINGDOM 1 Chancellor Court, Occam Road Surrey Research Park Guildford Surrey UNITED KINGDOM GU2 7YT
Attorney of Record Diane Donnelly
Priority Date January 14, 2005
Type of Mark TRADEMARK. SERVICE MARK
Register PRINCIPAL
Live/Dead Indicator LIVE

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Xdime

From Wikipedia, the free encyclopedia

XDIME is a xHTML Device Independent Markup Extensions. The acronym originally stood for XHTML with Device Independent Markup Extensions. It is a device independent authoring language. It allows content to be created once but delivered to the myriad traditional and mobile devices that can connect to the Web. Device-specific characteristics of a web site are captured separately as a set of policies that tailor the user experience to the particular type of device being used. Page layout, styling and media, such as images, are examples of resources that are controlled by policies. Style-related policies make use of the W3C CSS 2 specification.

When a device accesses a site authored using XDIME, the markup and the related policies are subjected to Content Adaptation. This creates device-specific materials from the authored content and policies. The device-specific materials are appropriate for the particular device being used to access a site.

XDIME has been in existence since the year 2000. Early in its life it was known as MAML and Marlin before finally gaining the name XDIME. Originally devised by Volantis Systems, the language has appeared in a number of products and services including Volantis' Multi Channel Server (MCS), and IBM's Mobile Portal Accelerator. It is at the heart of dozens of mobile networks across the globe.

The latest version, **XDIME 2**, is based on the W3C Device Independent Authoring Language (DIAL (<http://www.w3.org/TR/dial/>)) specification. DIAL itself includes some of the latest W3C specifications, including XHTML 2 (<http://www.w3.org/TR/xhtml2/>) .

XDIME-CP is a version of XDIME 2 that is particularly appropriate for content partners providing materials for an operator portal. This version allows the operator to retain some level of control over the look and feel of their portal while simplifying the task of integration.

The original version of XDIME, now known as **XDIME 1**, is based on XHTML 1.1 and a very early draft of the XForms specification, also from W3C.

Any version of XDIME can be used with a wide range of server-side technologies when creating applications. Ruby/Rails, PHP, Python, Perl and any of the Java web application technologies can be used.

Retrieved from "<http://en.wikipedia.org/wiki/Xdime>"

Categories: Markup languages

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United States Patent and Trademark Office

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QLARITY

Word Mark	QLARITY
Goods and Services	IC 009. US 021 023 026 036 038. G & S: computer programs featuring an object-based computer programming language supporting procedural programming, data abstraction, object-oriented programming and generic programming for human-machine interface terminals and computers. FIRST USE: 20001215. FIRST USE IN COMMERCE: 20010201
Standard Characters Claimed	
Mark Drawing Code	(4) STANDARD CHARACTER MARK
Serial Number	78765067
Filing Date	December 1, 2005
Current Filing Basis	1A
Original Filing Basis	1A
Published for Opposition	August 22, 2006
Registration Number	3168196
Registration Date	November 7, 2006
Owner	(REGISTRANT) QSI Corporation CORPORATION UTAH 2212 South West Temple, Suite 50 Salt Lake City UTAH 84115
Attorney of Record	Christopher L. Johnson

Type of Mark TRADEMARK
Register PRINCIPAL
Live/Dead Indicator LIVE

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801-466-8770

Qlarity - Free Object-Based Programming

RESOURCES

Qlarity Software Support Forum

Qlarity® (pronounced "Clarity") is QSI's free object-based programming language that ships with many of our graphic terminals. Qlarity Foundry® is a free PC-based design tool to design, simulate and download Qlarity applications to our Qlarity-based terminals.

Qlarity Language Innovative Object-Based Graphic Terminal Language

Qlarity's standard programming features conditional logic (IF-ELSE), looping (WHILE, FOR-NEXT), logical and arithmetic operators and built-in functions that access terminal hardware.



Qlarity Foundry FREE Integrated Design Environment

Qlarity Foundry, our free PC-based design tool, provides a Windows® environment for easy screen creation and application development. Download your free copy today.



Qlarity Hardware Rugged Graphic Terminals

Our Qlarity supported graphic terminals feature handheld, panel-mount or pedestal-mount housings, color or grayscale displays and resistive touch screens.



Because of Qlarity Foundry's flexible programming interface, we were able to provide a smooth and nearly invisible transition from our outdated interface.

— Ivan Markowitz, Eastman Machine

99



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QSI Corporation

From Wikipedia, the free encyclopedia

QSI Corporation is a private manufacturing company located in South Salt Lake, Utah that specializes in rugged human machine interfaces and mobile data terminals.

Contents

- 1 History
- 2 Technology
- 3 References
- 4 External links

History

Established in 1983 by James K. and John D. Elwell, QSI began manufacturing low-power C-44 bus board computers. In 1984, QSI introduced their first terminal (the "QTERM"), a simple 20-key unit with a display. QSI products have been used in numerous extreme environments including arctic installations, off-shore oil rigs, and the United States space shuttle.^[1]

Technology

QSI's human machine interface and mobile data terminals (TREQ) are CE Certified, RoHS compliant and NEMA 4/12/13 rated. QSI is an acknowledged leader for rugged handheld human-machine interface devices.^[2] Vissumo (formerly InfiniTouch) touchscreen technology was first developed at QSI.^[3] QSI also introduced the first mobile data terminal with a 4.3-inch format touchscreen display specifically designed for the trucking industry.^[4] Qlarity, an object-based programming language, was designed by QSI Corporation for use on their graphic HMIs and mobile data terminals.

References

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Exhibit B

Khronos Adopters Conformant Products

[OpenCL](#) | [OpenGL ES](#) | [OpenGL SC](#) | [COLLADA](#) | [OpenKODE](#) | [OpenV3](#) | [OpenMAX IL](#) | [OpenWF](#)

OpenCL



The AMD Imageon product family of media processors provides high-quality, feature-rich 2D & OpenGL ES-accelerated 3D graphics, gaming, video applications and support a variety of multimedia features necessary for today's mobile consumer. For more information, please visit <http://www.amd.com>.



Apple ignited the personal computer revolution in the 1970s with the Apple II and reinvented the personal computer in the 1980s with the Macintosh. Today, Apple continues to lead the industry in innovation with its award-winning desktop and notebook computers, OS X operating system, and iLife and professional applications. Apple is also spearheading the digital music revolution with its iPod portable music players and iTunes online music store.

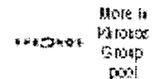
For more information, please visit <http://www.apple.com/>.



Creative is a worldwide leader in digital entertainment products for PC users. Famous for its Sound Blaster sound cards, Creative is now driving digital entertainment on the PC platform with products like the Zen and MuVo MP3 players. Creative's innovative hardware, proprietary technology, applications and services leverage the Internet, enabling consumers to experience high-quality digital entertainment -- anytime, anywhere. 3Dlabs, a wholly owned subsidiary of Creative Technology Ltd., is a leading innovator in professional visual processing and supplies a broad range of graphics accelerators to Computer Aided Design, Digital Content Creation, and visual simulation professionals. Its Wildcat graphics solutions are available in OEM workstations, through an international distributor/reseller network, and directly to end-users at 3Dlabs' online store. For more information, please visit <http://us.creative.com> or <http://www.3dlabs.com>.



International Business Machines Corporation (NYSE: IBM) is a multinational computer technology and consulting corporation. IBM is the largest information technology employer in the world. IBM Researchers have been recognized with 5 Nobel prizes, and 6 Turing awards. IBM manufactures and sells computer hardware and software, and offers infrastructure services, hosting services, and consulting services in areas ranging from mainframe computers to nanotechnology. (IBM is a registered trademark of International Business Machines Corporation). For more information, please visit <http://www.ibm.com/>.



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notebook computers, OS X operating system, and iLife and professional applications. Apple is also spearheading the digital music revolution with its iPod portable music players and iTunes online music store.

For more information, please visit <http://www.apple.com/>.

CREATIVE

Creative is a worldwide leader in digital entertainment products for PC users. Famous for its Sound Blaster sound cards, Creative is now driving digital entertainment on the PC platform with products like the Zen and MuVo MP3 players. Creative's innovative hardware, proprietary technology, applications and services leverage the Internet, enabling consumers to experience high-quality digital entertainment -- anytime, anywhere. 3DLabs, a wholly owned subsidiary of Creative Technology Ltd., is a leading innovator in professional visual processing and supplies a broad range of graphics accelerators to Computer Aided Design, Digital Content Creation, and visual simulation professionals. Its Wildcat graphics solutions are available in OEM workstations, through an international distributor/reseller network, and directly to end-users at 3DLabs' online store. For more information, please visit <http://us.creative.com> or <http://www.3dlabs.com>.



International Business Machines Corporation (NYSE: IBM) is a multinational computer technology and consulting corporation. IBM is the largest information technology employer in the world. IBM Researchers have been recognized with 5 Nobel prizes, and 8 Turing awards. IBM manufactures and sells computer hardware and software, and offers infrastructure services, hosting services, and consulting services in areas ranging from mainframe computers to nanotechnology. (IBM is a registered trademark of International Business Machines Corporation). For more information, please visit <http://www.ibm.com/>.



NVIDIA is the world leader in visual computing technologies and the inventor of the GPU, a high-performance processor which generates breathtaking, interactive graphics on workstations, personal computers, game consoles and mobile devices. NVIDIA serves the entertainment and consumer market with its GeForce graphics products, the professional design and visualization market with its Quadro graphics products, the high-performance computing market with its Tesla computing solutions products and the mobile market with its Tegra application processors. All NVIDIA products extensively support Khronos open standard APIs. For more information, please visit <http://www.nvidia.com>.



ZiiLABS is a leader in media-rich application processors, hardware platforms and advanced middleware. Its products enable OEMs, ODMs, System Integrators and Software Developers to deliver industry-leading devices across a broad range of consumer electronics and embedded markets. Originally founded in 1994 as 3DLABS, the company re-branded and joined with the Personal Digital Entertainment group of Creative Technology to form ZiiLABS in January 2009. ZiiLABS with over 800 R&D engineers today has invested US\$1 billion and 10,000 man years in media processing solutions and has offices in the UK, China, USA, and Singapore. For more information, please visit <http://ziilabs.com/>.



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OpenCL Adopters Overview

OpenCL Adoption and Conformance Testing

Any company may freely use the publicly released OpenCL specification to create a product, but implementations of the OpenCL API must be tested for conformance in the Khronos OpenCL Adopters program before the OpenCL name or logo may be used in association with an implementation of the API.

Implementers may join the Khronos OpenCL Adopters Program which enables them to download and execute the OpenCL conformance tests and upload the results for peer review within Khronos. If the implementation successfully passes the tests, the Adopter is granted a royalty-free trademark license to use the OpenCL name and logo in association with that implementation - and they can refer to the implementation as being OpenCL conformant or OpenCL compliant.

Benefits of the OpenCL Adopters program:

- Access to the OpenCL 1.0 conformance test source code
- Participation in the OpenCL Adopters technical Mailing list - a private priority channel for two-way interaction with the OpenCL working group over the specification and conformance tests
- Conformant products may use the OpenCL name and logo
- Company listing on the [Adopting Members](#) and [Conformant Products](#) pages

For Adopters Program application forms, process description and pricing please visit the [main Adopters page](#).

OpenCL is a trademark of Apple Inc., and is used under license by Khronos. The OpenCL logo and guidelines for its usage in association with Conformant products can be found here:

<http://developer.apple.com/softwarelicensing/agreements/opencl.html>

If you have questions about becoming an OpenCL Adopter, please send an email to finance at goldstandardgroup.com

OpenCL

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- ▶ [OpenCL Mail pages](#)
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Khronos Trademark Guidelines

April 2010

1. Background

Khronos owns, or has licensed, trademarks used to identify its activities and specifications – for example the OpenGL® mark. The trademarks used by Khronos are collectively referred to as the *Khronos Marks*. Khronos maintains strict control over usage of the Khronos Marks to protect the integrity of its specifications. This document defines who may use the Khronos Marks, and under what terms and conditions.

Khronos Marks are protected in both text and logo form. For example, the text string “OpenGL” is a trademark - as is the OpenGL logo. In addition, Khronos may make available Certification Logos available for use on fully conformant products.

To assure that implementations of Khronos specifications meet a consistent standard of the highest quality, the Khronos Group maintains Adopter Programs that provide access to conformance tests for verification by Khronos that a product or implementation conforms to the specification. Any party who wishes to market and distribute an implementation that is identified by use of a Khronos Mark (in text or logo form) must execute the Khronos Adopters Agreement http://www.khronos.org/files/adopters_agreement.pdf and successfully pass the implementation through the conformance testing procedure as defined in the Khronos Conformance Process Document http://www.khronos.org/files/conformance_procedures.pdf.

A *Khronos Member* has a current Promoter or Contributor membership of the Khronos Group, and an *Adopter* has executed a Khronos Adopters Agreement for a specific specification and has paid any associated Adopters fees. You do not have to be a Khronos Member to be an Adopter – and vice versa.

Use of Marks NOT RELATED to a Product or Platform	Use of Marks in association with a Product or Platform – MUST BE BY AN ADOPTER (paid and signed)				
	Use of Marks in association with a Product Implementation				Use of Marks in Platform Definitions
Members Permission granted through Membership Agreement	Spec is Provisional or tests are not published for API	Product is NOT submitted to Conformance Process	Product Passes Published Conformance Tests – BUT Submission is in 30 Day Review	Product Passes Published Conformance Tests – AND Submission is Complete	Platform definition must mandate Khronos Conformance for referenced specifications
Non-Members Must obtain written permission from Khronos	Use text mark only – NOT Logo	Use text mark only – NOT Logo	May use text mark AND Logo	May use text mark AND Logo	May use text mark AND Logo
Example: Promoting publications, courses	Make agreed statement that specification is provisional and implementation may change when finalized	Make agreed statement that Product is not yet conformant – and provide link to conformance site	Make agreed statement that Product is in Conformance review – and provide link to conformance site	May also optionally use Certification Logo	

Khronos published Trademark Usage Guidelines MUST be followed (includes guidelines from trademark licensors)

Figure 1. Summary of Trademark Guidelines for Khronos Marks

2. Use of Khronos Marks NOT Related to a Product or Platform

Companies or individuals that are not members of Khronos and who wish to use a Khronos Mark for promotional or educational purposes are welcome to apply for a Khronos Non-Member Trademark License at www.khronos.org/trademarks. Grant of the Non-Member Trademark License is at Khronos' sole discretion and specifically excludes any usage of a Khronos Mark (in text or logo form) in association with a specific implementation of a Khronos Specification.

Khronos members may use Khronos Marks for promotional and educational purposes according to the terms and conditions in the Khronos Membership Agreement. Members that are not Adopters of a specification are excluded from using a Khronos Mark (in text or logo form) in association with a specific implementation of that Khronos Specification.

Examples:

- a publisher who wishes to use the OpenCL logo on the cover of a book must apply to Khronos for a Non-Member Trademark License – which grants permission for that specific trademark usage;
- a Khronos member that is not an Adopter of OpenGL may use the OpenGL logo on a web page that is promoting high performance graphics – as long as no specific implementation of OpenGL is referenced;
- a Khronos member that is NOT an Adopter of OpenVG may NOT use the OpenVG name OR logo in association with a specific hardware or software implementation of the OpenVG specification.

3. Use of Khronos Marks in Association with a Product Implementation

ANY company using a Khronos Mark (in text or logo form) in association with an implementation of a Khronos specification MUST be a fully paid and signed up Adopter of that specification.

If a product has not fully passed the Khronos Conformance Process an Adopter may NOT use wording associated with that product such as "conformant", "compliant", "complies with", "full implementation" or any other term that implies in any way that the implementation is officially compliant.

3.1 Provisional specification or conformance tests not available

An Adopter with an implementation of a provisional specification, or an implementation of a specification that does not have available conformance tests, may use the relevant Khronos Mark in association with the implementation with the following restrictions:

- a) only in text and *not* logo form;
- b) any materials using the Khronos Mark must state as appropriate:

"Product is based on a provisional Khronos Specification, which may change before final release. Current specification status can be found at www.khronos.org/specname"

Or

"Product is based on a published Khronos Specification, and is expected to pass the Khronos Conformance Testing Process when available. Current conformance status can be found at www.khronos.org/conformance."

3.2 Products before submission to conformance process

An Adopter with an implementation of a published specification that has not yet been submitted to the Khronos Conformance Process may use the relevant Khronos Mark in association with the implementation with the following restrictions:

- a) only in text and *not* logo form;
- b) any materials using the Khronos Mark must state:

"Product is based on a published Khronos Specification, and is expected to pass the Khronos Conformance Testing Process. Current conformance status can be found at www.khronos.org/conformance."

3.3 Products during Submission Review Period

An Adopter with an implementation of a published specification that has been submitted to the Khronos Conformance Process and is in the Conformance Review Period, including any restarts of the Review Period, may use the relevant Khronos Mark in text *and* logo form in association with the implementation with the following restriction:

a) any materials using the Khronos Mark must state:

"Product is based on a published Khronos Specification, and is expected to pass the Khronos Conformance Testing Process. Current conformance status can be found at www.khronos.org/conformance."

3.4 Conformant Products

An Adopter that has an implementation of a published specification that has been submitted to and passed the Khronos Conformance Process may use the relevant Khronos Mark in text, logo and certification mark form in association with the implementation, and Adopters may state that their products are conformant or compliant with the appropriate specifications with statements similar to:

"Product is conformant with [Khronos Specification]"

"Product is compliant with [Khronos Specification]"

"Product is complies with [Khronos Specification]"

"Product is a full implementation with [Khronos Specification]".

or use other terms as appropriate that communicates that the implementation is officially compliant.

4. Use of Khronos Marks in Platform Definitions

ANY company using a Khronos Mark (in text or logo form) within a platform or operating system definition that references a Khronos specification MUST be a fully paid and signed up Adopter of that specification.

Adopters may use a Khronos Mark in an operating system specification or platform definition, in text or logo form, provided that Khronos Conformance for products implementing the referenced specifications is mandated as part of the conformance procedure for that platform.

5. Trademark Usage

Any party that is granted use of Khronos Marks must follow Khronos Trademark Usage Guidelines at www.khronos.org/trademarks.

In addition:

Apple has licensed the OpenCL trademark to Khronos, and any use of the OpenCL mark must follow both Apple's Guidelines for Using Apple Trademarks found at <http://www.apple.com/legal/trademark/guidelinesfor3rdparties.html>, and any additional OpenCL Logo Guidelines posted by Apple.

SGI has licensed the OpenGL, OpenML, OpenGL ES and OpenGL SC trademarks to Khronos, and any use of the SGI Marks must follow SGI's guidelines for using SGI trademarks found at http://www.sgi.com/company_info/trademarks.

Exhibit C

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Apple Inc. : Trademark Attorney: Michael Webster
: :
Mark: OPENCL & Design : Law Office: 102
: :
Serial No. 77/844,718 :
: **DECLARATION OF**
: **NEIL TREVETT**

1. I, Neil Trevett, am the President of the Khronos Group, a not-for-profit industry consortium that manages open standards for the authoring and acceleration of parallel computing, graphic, and dynamic media on a wide variety of computing platforms and devices. I am also Vice President of Mobile Content at NVIDIA Corporation, one of the world's leading developers of digital media processors. All information provided within this affidavit is personally known to me or is information that has been provided to me that I believe to be true.

2. I have worked professionally in the computer industry for more than 20 years. From 1997 to 2005, I served as President of the Web3D Consortium, which organizes industry-leading companies dedicated to creating open standards for communicating real-time in 3D on the Internet. I was elected President of the Khronos Group in 2001, and I joined NVIDIA as vice president in 2005.

3. Khronos was founded in 2000 by a number of media-centric companies, including NVIDIA, ATI Technologies, Discreet, Evans & Sutherland, Intel Corporation, Silicon Graphics, and Sun Microsystems. Today, Khronos Group has roughly 100 member companies.

4. Khronos Group manages a number of different computing standards that were originally developed by other parties. One of these is the OPENCL standard, which is based on technology developed by Apple Inc. and is used as a framework for writing programs that execute across heterogeneous devices consisting of CPU's, GPU's, and other processors.

5. OPENCL is not generic or an industry term of art. It is also not merely the name of a computer language. OPENCL refers to the standard originally developed by Apple, which Apple has contributed to the Khronos Group, together with a trademark license for OPENCL from Apple to Khronos so that Khronos Group can manage the ongoing development of the technical specifications and administer a conformance program for the standard. The members of Khronos — namely, companies such as

NVIDIA, IBM, AMD, and Intel — are licensed to use the mark OPENCL in connection with their own conforming implementations of the standard through the conformance program.

6. The specifications of the OPENCL standard are not determined by general consensus or common usage; they are determined by working groups within the Khronos Group consisting solely of Khronos members. Developers who see the mark OPENCL in connection with a member's implementation of the standard know that the implementation meets the specifications promulgated by Khronos Group and have passed the criteria defined in Khronos' conformance program. Our trademark usage guidelines (attached as Exhibit A) specify how our members may use the names of the standards we manage, including the mark OPENCL, which we have licensed from Apple.

7. Based on my experience with industry consortia in the software development field, it is clear that the name of an open standard can also be the name of a programming language, but that the industry would still recognize that name as a trademark. Developers associate the name of an open standard with the organization managing and evolving the standard, and developers use the mark as an indication of conformance to the criteria defined by that organization. The names of the standards that Khronos Group manages are trademarks, and our members that implement the standards are using the marks under license.

8. Apple uses OPENCL as a mark for a particular implementation of the OPENCL standard and programming language—namely, an application program interface (API) computer software feature of the Mac OS X operating system. This feature meets the specifications of the OPENCL standard managed by Khronos under license from Apple.

Having been warned that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 10001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any registration resulting therefrom, I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true.



Neil Trevett

Exhibit A

Khronos Trademark Guidelines

April 2010

1. Background

Khronos owns, or has licensed, trademarks used to identify its activities and specifications – for example the OpenGL® mark. The trademarks used by Khronos are collectively referred to as the *Khronos Marks*. Khronos maintains strict control over usage of the Khronos Marks to protect the integrity of its specifications. This document defines who may use the Khronos Marks, and under what terms and conditions.

Khronos Marks are protected in both text and logo form. For example, the text string “OpenGL” is a trademark - as is the OpenGL logo. In addition, Khronos may make available Certification Logos available for use on fully conformant products.

To assure that implementations of Khronos specifications meet a consistent standard of the highest quality, the Khronos Group maintains Adopter Programs that provide access to conformance tests for verification by Khronos that a product or implementation conforms to the specification. Any party who wishes to market and distribute an implementation that is identified by use of a Khronos Mark (in text or logo form) must execute the Khronos Adopters Agreement http://www.khronos.org/files/adopters_agreement.pdf and successfully pass the implementation through the conformance testing procedure as defined in the Khronos Conformance Process Document http://www.khronos.org/files/conformance_procedures.pdf.

A *Khronos Member* has a current Promoter or Contributor membership of the Khronos Group, and an *Adopter* has executed a Khronos Adopters Agreement for a specific specification and has paid any associated Adopters fees. You do not have to be a Khronos Member to be an Adopter – and vice versa.

Use of Marks NOT RELATED to a Product or Platform	Use of Marks in association with a Product or Platform – MUST BE BY AN ADOPTER (paid and signed)				
	Use of Marks in association with a Product Implementation				Use of Marks in Platform Definitions
	Specs Provisional or tests are not published for API	Product Is NOT submitted to Conformance Process	Product Passes Published Conformance Tests – BUT Submission is in 30 Day Review	Product Passes Published Conformance Tests – AND Submission is Complete	
Members Permission granted through Membership Agreement	Use text mark only – NOT Logo	Use text mark only – NOT Logo	May use text mark AND Logo	May use text mark AND Logo	Platform definition must mandate Khronos Conformance for referenced specifications May use text mark AND Logo
Non-Members Must obtain written permission from Khronos	Make agreed statement that specification is provisional and implementation may change when finalized	Make agreed statement that Product is not yet conformant – and provide link to conformance site	Make agreed statement that Product is in Conformance review – and provide link to conformance site	May also optionally use Certification Logo	
Example: Promoting publications, courses					

Khronos published Trademark Usage Guidelines MUST be followed (includes guidelines from trademark licensors)

Figure 1. Summary of Trademark Guidelines for Khronos Marks

2. Use of Khronos Marks NOT Related to a Product or Platform

Companies or individuals that are not members of Khronos and who wish to use a Khronos Mark for promotional or educational purposes are welcome to apply for a Khronos Non-Member Trademark License at www.khronos.org/trademarks. Grant of the Non-Member Trademark License is at Khronos' sole discretion and specifically excludes any usage of a Khronos Mark (in text or logo form) in association with a specific implementation of a Khronos Specification.

Khronos members may use Khronos Marks for promotional and educational purposes according to the terms and conditions in the Khronos Membership Agreement. Members that are not Adopters of a specification are excluded from using a Khronos Mark (in text or logo form) in association with a specific implementation of that Khronos Specification.

Examples:

- a publisher who wishes to use the OpenCL logo on the cover of a book must apply to Khronos for a Non-Member Trademark License - which grants permission for that specific trademark usage;
- a Khronos member that is not an Adopter of OpenGL may use the OpenGL logo on a web page that is promoting high performance graphics - as long as no specific implementation of OpenGL is referenced;
- a Khronos member that is NOT an Adopter of OpenVG may NOT use the OpenVG name OR logo in association with a specific hardware or software implementation of the OpenVG specification.

3. Use of Khronos Marks in Association with a Product Implementation

ANY company using a Khronos Mark (in text or logo form) in association with an implementation of a Khronos specification MUST be a fully paid and signed up Adopter of that specification.

If a product has not fully passed the Khronos Conformance Process an Adopter may NOT use wording associated with that product such as "conformant", "compliant", "complies with", "full implementation" or any other term that implies in any way that the implementation is officially compliant.

3.1 Provisional specification or conformance tests not available

An Adopter with an implementation of a provisional specification, or an implementation of a specification that does not have available conformance tests, may use the relevant Khronos Mark in association with the implementation with the following restrictions:

- a) only in text and *not* logo form;
- b) any materials using the Khronos Mark must state as appropriate:

"Product is based on a provisional Khronos Specification, which may change before final release. Current specification status can be found at www.khronos.org/specname"

Or

"Product is based on a published Khronos Specification, and is expected to pass the Khronos Conformance Testing Process when available. Current conformance status can be found at www.khronos.org/conformance."

3.2 Products before submission to conformance process

An Adopter with an implementation of a published specification that has not yet been submitted to the Khronos Conformance Process may use the relevant Khronos Mark in association with the implementation with the following restrictions:

- a) only in text and *not* logo form;
- b) any materials using the Khronos Mark must state:

"Product is based on a published Khronos Specification, and is expected to pass the Khronos Conformance Testing Process. Current conformance status can be found at www.khronos.org/conformance."

3.3 Products during Submission Review Period

An Adopter with an implementation of a published specification that has been submitted to the Khronos Conformance Process and is in the Conformance Review Period, including any restarts of the Review Period, may use the relevant Khronos Mark in text *and* logo form in association with the implementation with the following restriction:

a) any materials using the Khronos Mark must state:

"Product is based on a published Khronos Specification, and is expected to pass the Khronos Conformance Testing Process. Current conformance status can be found at www.khronos.org/conformance."

3.4 Conformant Products

An Adopter that has an implementation of a published specification that has been submitted to and passed the Khronos Conformance Process may use the relevant Khronos Mark in text, logo and certification mark form in association with the implementation, and Adopters may state that their products are conformant or compliant with the appropriate specifications with statements similar to:

"Product is conformant with [Khronos Specification]"

"Product is compliant with [Khronos Specification]"

"Product is complies with [Khronos Specification]"

"Product is a full implementation with [Khronos Specification]".

or use other terms as appropriate that communicates that the implementation is officially compliant.

4. Use of Khronos Marks in Platform Definitions

ANY company using a Khronos Mark (in text or logo form) within a platform or operating system definition that references a Khronos specification MUST be a fully paid and signed up Adopter of that specification.

Adopters may use a Khronos Mark in an operating system specification or platform definition, in text or logo form, provided that Khronos Conformance for products implementing the referenced specifications is mandated as part of the conformance procedure for that platform.

5. Trademark Usage

Any party that is granted use of Khronos Marks must follow Khronos Trademark Usage Guidelines at www.khronos.org/trademarks.

In addition:

Apple has licensed the OpenCL trademark to Khronos, and any use of the OpenCL mark must follow both Apple's Guidelines for Using Apple Trademarks found at <http://www.apple.com/legal/trademark/guidelinesfor3rdparties.html>, and any additional OpenCL Logo Guidelines posted by Apple.

SGI has licensed the OpenGL, OpenML, OpenGL ES and OpenGL SC trademarks to Khronos, and any use of the SGI Marks must follow SGI's guidelines for using SGI trademarks found at http://www.sgi.com/company_info/trademarks.

Exhibit D



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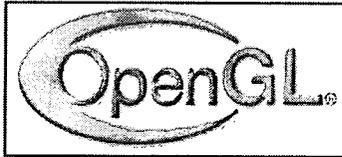
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- [OpenGL ES Programming for iOS and Mac - UK](#)
- [Mobile World Congress 2011](#)

[More upcoming events](#)

OGL Message Boards

- [glGenFrameBuffers \(EXT\) always fails!](#)

OpenGL Headline News

GeeXLab 0.2.10 Released

Category: [Developers](#) • [Comments](#)

Feb 01, 2011

The new version of GeeXLab is available. GeeXLab is a tool for quick coding and prototyping of real time 3D scenes with Lua, Python and OpenGL shading language (GLSL). GeeXLab 0.2.10 brings bugfixes and minor features as well as new Lua demos. LuaGL is also supported in order to provide OpenGL API support from Lua.

3D photorealistic Augmented Reality using OpenGL 3

Category: [General](#) • [Comments](#)

Feb 01, 2011

NeuroSystems released a new video showing 3D realtime photorealistic Augmented Reality and Computer Vision achieved with its technology Kort-X (artificial intelligence) and P.U.R.E. (rendering engine) featuring realtime Global Illumination rendering using OpenGL 3.0 (GPU used is ATI Radeon HD5970 Dual-GPU).



Getting Started with OpenGL

Official OpenGL 4.1 feedback thread

OpenGL 4.1 Quick Reference Card (PDF)



Getting Started with WebGL

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- [OpenCOLLADA releases major update](#)
- [Khronos member Rightware Oy to demonstrate Stereoscopic 3D UI concept at Mobile World Congress](#)
- [Creating the worlds smallest WebGL page](#)
- [AMD releases the FirePro 2270 GPU](#)

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AMD releases the FirePro 2270 GPU

Category: [Processors](#) • [Comments](#)

Jan 31, 2011

AMD just released two new FirePro GPUs. The FirePro 2270 using only 15W at full load fully supports OpenGL 4.1. Designed for professional use in CAD workstations and rendering systems, the budget-end FirePro 2270 card has a low-profile design, passive cooler, and is intended to replace the actively-cooled FirePro 2250.

GLM 0.9.0.7 update released

Category: [Developers](#) • [Comments](#)

Jan 31, 2011

Two major changes in the latest version of GLM include GLSL 4.10 packing functions and == and != operators for all types.

An in-depth introduction to OpenGL in three parts

Category: [Developers](#) • [Comments](#)

Jan 31, 2011

An in-depth introduction to OpenGL and OpenGL ES is underway on db Interactively blog. First up is coverage for the basic concepts of #D and OpenGL for beginners. Next up, though not online yet, will be OpenGL ES 2.0 in depth, with the promise of lots of code, followed by advanced OpenGL ES 2.0 and 3D.

Read more OpenGL news

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OpenML Overview

OpenML - The Standard for Dynamic Media Authoring



OpenML® is an open source, royalty-free, cross-platform programming environment for capturing, transporting, processing, displaying, and synchronizing digital media - including 2D/3D graphics and audio/video streams. OpenML 1.0 defines professional-grade sample-level stream synchronization, OpenGL extensions for accelerated video processing, the MLdc™ professional display control API and the ML™ framework for asynchronous media streaming between applications and processing hardware.

OpenML 1.0 at a glance

OpenML is a cross-platform standard programming environment for capturing, transporting, processing, displaying, and synchronizing digital media (2D and 3D graphics, audio and video processing, I/O, and networking).

OpenML - for Dynamic Media Authoring

OpenML 1.0

[Download OpenML 1.0 Specification](#) (.PDF, 866 KB)

[OpenML 1.0 Specification Errata](#) (.PDF, 99 KB)

OpenML ML 1.1 Software Development Kit and Manuals

[OpenML Reference Implementation SDK and Manuals - ML 1.1](#) (release July-22-05 hosted on SourceForge)

[OpenML SDK ML 1.1 Release Notes](#) (.PDF, 116 KB)

[OpenML Media Library Software Development Kit Beginner's Guide](#) (hosted by SGI)

What is OpenML?

OpenML® is a cross-platform standard programming environment for capturing, transporting, processing, displaying, and synchronizing digital media (2D and 3D graphics, audio and video processing, I/O, and networking). Any developer or company can freely [download](#) the OpenML Specification & SDK and implement and ship products using OpenML completely free of charge, royalty or licensing.

Developer Advantages of OpenML

- **Standardized** - OpenML standardizes support for audio, video, 2D graphics, and 3D graphics at the lowest level that provides the desired functionality and unification (i.e., the thinnest possible layer on top of the hardware)
- **Portable** - OpenML supports a range of operating environments, from embedded systems to high-end workstations
- **Reliable** - OpenML utilizes existing proven standards and works within existing standards bodies wherever possible
- **Royalty & Licensing Free** - OpenML is a cross-platform, free, open standard so developers may [download](#), implement and ship products using OpenML completely free of charge, royalty or licensing.

Problems with cross-platform dynamic media authoring and playback and how they are addressed by the OpenML framework

Content creators, whether working on a video production, developing a game, or constructing an interactive disc, are currently forced to use many different APIs and tools from many different vendors and organizations to simply tie their multiple applications and hardware peripherals together.

Similarly, application developers in this situation currently have to make some very difficult decisions about the APIs to use in order to access the various pieces of hardware in the system. Much of the work is liable to be hardware- and operating system-specific and require hand-tuning to achieve acceptable performance.