

Dynamic Object Language Labs

Artificial Intelligence Consulting Services

27 September 1995

Dynamic Object Language Labs (DOLL), which was incorporated in 1993, is dedicated to assisting companies succeed at utilizing object oriented technology to help achieve their organization's goals. We offer both products and services in support of this goal. Our first development tool product, Yolambda, is an advanced, dynamic, object oriented language whose great power and simplicity make both learning and using this tool easy and highly productive. The first version of Yolambda is now available running under OS/2. DOLL is also working on object oriented class libraries, to increase the productivity and effectiveness of both Yolambda and C++ developers. Among the Yolambda class libraries are interfaces to common databases such as Sybase and Lotus Notes. Among the C++ libraries are rule-based inference engines, and image processing software. The first version of the C++ inference engine class libraries is now available on Sun Sparcstations running SunOS. DOLL also is working in partnership with Franz, Inc. to provide the Common Lisp Interface Manager (CLIM) on Franz's Allegro Common Lisp for Windows.

Our contract and consulting services are also based on our object oriented convictions. Object oriented programming methods have been important in Artificial Intelligence (AI) Research and Development for three decades. We have collectively in our AI consulting group over 35 years experience in AI research, and AI tool and application development. We have helped numerous customers successfully deliver both expert system applications, and applications that have a small but crucial AI component. We provide consulting and contract services in the areas of:

- Expert system development
- Genetic algorithms
- Intelligent tutoring systems
- Image recognition and manipulation
- Incorporating and integrating AI components in existing applications
- Porting AI applications and modules to C++

We have significant experience in developing both AI tools and applications for OS/2, Windows, Genera and Unix, using C++, Lisp, Smalltalk, Prolog, and Yolambda.

A customer success story

A large defense contractor needed a software module to do image recognition and manipulation for a set of graphics in a very large document base. We designed algorithms for recognition and transformation of images, metrics for comparison of images, and a genetic algorithm approach to learning image characteristics to use in the automated analysis and manipulation of the images. This successful use of AI technology is notable for three interesting (and common) features:

1. the AI was a small, but extremely important component of the overall solution,
2. it did **not** involve expert system technology, and
3. it did crucially involve object oriented programming methods.

Although many organizations have had tremendous success with more traditional expert systems, as have many of DOLL's customers, many applications require a very different application of AI technology. One of the advantages of dealing with DOLL is the diversity of applications and AI technology that we can apply to solving your problem.

Facilities and Personnel

DOLL's main offices are in Andover Massachusetts, with a network of IBM and Apple MacIntosh personal computers, and Sun and Symbolics workstations. Most software development at DOLL is done on and for personal computers or workstations running Unix, Genera, OS/2, Windows NT and Windows 3.1.

The key personnel at DOLL are Paul Robertson and Robert Laddaga. In addition to DOLL employees, on larger projects DOLL utilizes a number of independent consultants based in Massachusetts, and around the country.

Mr. Robertson, currently Chief Technical Officer of Dynamic Object Language Labs, has worked for over 15 years in the areas of system design and implementation, object oriented programming, artificial intelligence, cognitive science, and programming language design and implementation. He has managed significant software and hardware development projects, and conducted research in computer science and Artificial Intelligence. He has written numerous full, production quality compilers, and been a principal contributor in several large software development projects. He has also published on a number of topics.

Robert Laddaga, currently President of Dynamic Object Language Labs, has over 19 years of experience in system design and implementation, artificial intelligence, and programming language design and implementation. He has managed both small and large scale software development projects, and conducted research in computer science, cognitive psychology and cognitive science. He has been a principal contributor in software development projects including both systems and application software. He has also published on a number of topics.

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Consulting and Contract Rate Sheet

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Consulting contracts are on a time and materials basis, unless other arrangements have been negotiated. Fixed price contracts are a possibility, but are not generally recommended. Travel and expenses are charges above and beyond consulting and contract rates. The volume discount for greater than twenty days, applies only to single purchase orders for at least that many days. The discount does not apply to cumulative purchasing.

Daily rate, 1 to 20 days \$ 1000

Daily rate, more than 20 days \$ 850

Payment terms are Net 30.