

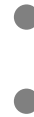


## Applications with Hyperception

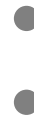
### Custom and Semi-custom Software



#### Save Time



#### Reduce Risk



#### Meet Schedule

# Hyperception Software Support Services

Application-specific Design with Custom  
Software Support Services from Hyperception

# Software Support Services from Hyperception

## Overview

Hyperception provides Software Support Services for the customer who is looking to reduce schedule, interested in minimizing labor expenditures or in-house expertise, or requires specialized assistance. We maintain a staff of highly-trained application engineers who can assist you with semi-custom software solutions and also provide you with custom software for your application.

Semi-custom software design is aimed at creating new block functions for our graphical design products (RIDE, Block Diagram, etc.). In addition, training courses and materials are also available from Hyperception to accelerate your own internal development efforts related to these products. Custom software design is also available for development of software applications outside of our standard software products.



Use Hyperception resources to help you get your program done on time and under budget

## Semi-custom Software Services

Hyperception is a leader in providing visually-designed digital signal processing tools used in the development of DSP-based products. This software has an underlying open software architecture that is modular to support future expansion and ease of maintenance; the semi-custom software support service allows Hyperception to leverage this capability by providing new customer-specific block functions. We possess expertise and unique capabilities that allow us to quickly create customer-specific functions for our Hypersignal RIDE, Block Diagram, OORVL, ImageDSP, and VIDSP Studio graphical design products. Should you desire any additional function, Hyperception is ready to create it for you, saving you time and reducing your overall schedule.

## Custom Software Services

Hyperception also accepts RFP's relating to software engineering and can support Statement Of Work (SOW) specifications. Whether your project is large or small, Windows/PC based, or standalone embedded DSP, feel free to contact us for a quote on custom software.

## Capabilities

Hyperception possesses unique capabilities which should be considered in a program of this nature. Our facilities include two engineering labs with ample workstations and networks to complete the tasks at hand. Hyperception has significant technical expertise in DSP, PC's, and operating systems to apply to projects, and over a decade of direct engineering experience in working with real-time DSP development tools. Finally, our corporate relationships, including strategic alliances with other companies in this field, and our reputation and credibility in the industry, are also important factors for many projects.

## Facilities

### Physical Configuration

Hyperception, Inc. is located in Dallas, Texas with dedicated facilities for personnel, administration, engineering with a state-of-the-art DSP software lab, marketing, production, and conference are available, and are designed to maximize coordination and efficiency. All personnel have dedicated computer systems which are networked via Novell, Linux, and Microsoft networks. Powerful database connectivity combined with modern administrative approaches allow quick interface from all departments.

### Development Environment

The engineering development environment includes Pentium II-based computing platforms connected to several engineering servers with source code backup and source control. Microsoft's Visual Sourcesafe is integrated into all engineering stations and provides Hyperception with top notch source code control for configuration management. Engineers have access to many types of DSP hardware, as well as the most recent software development tools, including editors, compilers, linkers, simulators, debuggers, and test software. A comprehensive engineering library is also available.

## Technical Expertise

### DSP Experience

Hyperception is uniquely positioned technically for DSP types of effort. We have been developing software for digital signal processors since our incorporation in June of 1984. Our software has been developed over the past decade and has resulted in the broadest support for DSP chips and boards in the industry. Specifically, our teams have developed working real-time code and other support for Texas Instruments' TMS320 family, which includes direct support for many TI-based DSP boards, Analog Devices DSP's (including the 2106x SHARC), Motorola DSP's, Lucent DSP's, and NEC's DSP's. We have experience not only in the specific languages of these and other DSP chips, but more importantly, we understand the concepts behind real-time signal processing as it is applied to the many areas of DSP. Hyperception is proud of the knowledge and experience acquired in the area of DSP, and is ideally positioned to offer this support.

### PC Experience

Hyperception has acquired its DSP experience via development on a single platform since 1984 - the PC. We have developed a great deal of software for DSP under several high-level languages, including Pascal and C/C++, with several types of compilers for each language. We are familiar with the many of the more difficult technical aspects of working with the PC, since this is the exclusive platform Hyperception supports. We are also in the forefront of Windows software development, including Windows 98/95 and Windows NT. Hyperception is recognized by Microsoft as being among the first 200 companies to pioneer applications for Windows NT.

## Relationships

### Strategic Alliances

Hyperception maintains many strategic alliances with key companies in the DSP industry, such as the DSP Semiconductor companies. These relationships have allowed us to provide comprehensive solutions to the customer. The majority of these relationships have been years in the making, and the mutual trust we have with these key DSP companies allows for many cooperative programs.

### Reputation and Position Within Industry

Hyperception has earned a trusted reputation and valuable position in the past fifteen years. Our reputation is that of a leader, not only in the DSP industry, but more importantly with our large customer base. Hyperception is well-respected among other companies, and front-line DSP experts; we are often consulted regarding products outside our own product line.

## Training

Hyperception offers training at both the individual and corporate classroom levels. The individual level training usually takes place at our facilities located in Dallas, Texas USA. Training at this level can be scheduled in one day increments, and should include a minimum of one full day for familiarization with the Block Diagram/RIDE Environment. The first day of training includes exposure to the finer details of our visual development environment, block function coverage, and use of the Block Wizard tool to create custom block functions for both simulation and Real-time modes. Also covered are the standard development tools used to compile Windows code as well as those used for DSP specific code. Additional days can be used to provide greater depth of knowledge, or to provide help to your engineers getting started using our development tools on a specific project. Corporate level training is more structured, usually includes a customer site visit by Hyperception personnel, and commonly involves the use of customer facilities for training sessions.

## Approach

During the performance of projects, we plan to achieve the following technical goals:

- Leverage existing code as much as possible to prevent "re-inventing the wheel" and reduce design time.
- Sufficiently document the design to support future maintenance by other software engineers.
- Provide technical documentation to allow customers to use the software effectively and possibly expand it with new features as needed in the future.

## Requirements

Hyperception requires the technical details (technical description, source code if avail., etc.) for the project. In addition, a technical point of contact and any relevant hardware is required for project.

## Schedule

### Semi-custom Software Schedule

Typical turn-around time for Semi-custom Software is about 3-4 weeks, but is dependant on the specific software requirements; expediting Semi-custom Software is possible – contact Hyperception for details.

### Custom Software Schedule

The schedule for Custom Software efforts will vary according to the project requirements. Hyperception will provide a proposed schedule after looking over the project-specific technical details provided by the customer.

## Pricing

### Semi-custom Software Pricing

Hyperception will provide a Firm Fixed Fee quotation for your Semi-custom Software project. Although pricing is dependant upon the specific block function and its technical challenge, a rough order of magnitude is \$1000 per PC-based block function, and \$2000 per DSP-based block function.

### Custom Software Pricing

Hyperception will also provide a Firm Fixed Fee quotation for your Custom Software project after looking over the project-specific technical details provided by the customer.

## Risk/Assurance

The technical risk for semi-custom software is minimized by use of production quality software and a true 'Black-Box' type of modular design. In addition, a Firm-Fixed-Fee pricing model is used for cost-containment so there are no cost overruns, and the total cost is known up front. Finally, 50% of the total cost is typically payable only at satisfactory project completion – **as defined by the customer!**

## Summary

Hyperception is pleased to offer these software support services. Hyperception specializes in DSP software development - we have been supplying leading edge engineering software since 1984. With our excellent line of Hypersignal development tools, the custom projects completed since incorporation, and our engineers' vast signal processing experience, Hyperception is an excellent choice when it comes to custom and semi-custom software development.

### International Distributors

#### AUSTRALIA

Electro-Optics Pty. Ltd., phone: (02) 9654-1873, fax: (02) 9654-1539

#### AUSTRIA

High Tech Electronic Services, phone: (01) 699-9067, fax: (01) 609-2131

#### BRAZIL

Anacom, phone: (11) 453-5588, fax: (11) 441-5177

#### DENMARK

Dan Metric, phone: (45) 43-71-64-44, fax: (45) 43-71-64-33

#### FINLAND

Arrow Finland, phone: (09) 47-666-372, fax: (09) 47-666-356

#### FRANCE

DSP Concept, phone: (01) 409-61-102, fax: (01) 409-61-482, E-mail: dspconcept@aol.com

#### GERMANY

GBM mbH, phone: (0)2166-98789-0, fax: (0) 2166-98789-1

WEZA Projekt Technik GmbH, phone: (40) 524-5044, fax: (40) 524-8905

#### HUNGARY

Sagax, phone: (01) 117-6097, fax: (01) 117-6143, E-mail: sagax@mail.datanet.hu

#### INDIA

Epsilon Control & Automation, phone: (80) 343-8892, fax: (80) 333-9629, E-mail: epsilon@giasbg01.vsnl.net.in

#### ITALY

Eurolink n.s.c., phone: (06) 522-00028, fax: (06)522-00031, E-mail: eurolink@tin.it

#### JAPAN

Cepstrum, phone : (0485) 50-1751, fax: (0485) 50-1752,

E-mail: cepstrum@sakitama.or.jp

E-mail: tms@iafrica.com

#### KOREA

Seoil DSP Company Ltd., phone: (02) 921-4127, fax: (02) 921- 6437 E-mail: kjyoon.seoildsp.co.com

#### P.R. CHINA

Watertek, phone: (86) 10-6238-3376, fax: (86) 10-6237-2872

#### RUSSIA

MicroLab Systems Ltd., phone/fax: (095) 485-6332, E-mail: info@mlabsys.com

#### SINGAPORE

Neurotech PTE Ltd., phone: (65) 773-4300, fax: (65) 777-5606, E-mail: neurotec@technet.sg

#### SOUTH AFRICA

Technology Marketing Solutions, phone: (011) 882-6836, fax: (011) 640-3804

#### SPAIN

Novatronic, S.A., phone: (94) 452-2768, fax: (94) 452-3658

#### SWEDEN

Metric Teknik, phone: (8) 629-03-31, fax: (8) 629-03-01

#### SWITZERLAND

MSP Friedli & Company, phone: (31) 972-3152, fax: (31) 971-4643

#### TAIWAN

Neat Technology Co. Ltd., phone:(02) 297-6634, fax:(02) 297-6632, E-mail: neattech@s2net.org.tw

Exartech International, phone: (02) 977-6828, fax: (02) 977-6829, E-mail: idpt182@tpts1.seed.net.tw

**For more detailed information, please contact:**

**Hyperception, Inc.**  
**9550 Skillman LB 125**  
**Dallas, TX 75243**

**Voice: 214-343-8525 Fax: 214-343-2457**  
**E-Mail: info@hyperception.com**

***Hyperception***  
**www.hyperception.com      The Leader in DSP**