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## Consulting Services

### Table of Contents

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|---------------------------------------|--------------------------------------|
| <b>1. INTRODUCTION</b>                | <b>5. CUSTOM INFORMATION SYSTEMS</b> |
| <b>2. COMPUTER INTERFACING</b>        | <b>6. DATA PRESENTATION</b>          |
| <b>3. DATA CONVERSION</b>             | <b>7. DATA PROCESSING</b>            |
| <b>4. ELECTRONIC DATA INTERCHANGE</b> | <b>8. CONCLUSION</b>                 |

### 1. INTRODUCTION

On this page you will find a brief description of the various services offered by M+H. We are a consulting company, so our slate of services is somewhat flexible. We will gladly consider a wide range of requests. However, this page should give you an idea of whether or not our abilities and your needs are a good fit.

### 2. COMPUTER INTERFACING

By "Computer Interfacing" we mean the repeatable connection of one computer system to another, the automatic transfer of data between two systems. We can even link two radically dissimilar systems, despite your IS people telling you that such linkage is impossible. The interface may be impossible by conventional means, but we have many tools in our toolbox. Because the truth is that your intuition is right: all your computers are basically the same inside and nine times out of ten, whatever one computer can hold, another computer can hold.

To be concrete, computer systems often perform less than 100% of the functions you need. Often part of what you need resides in one system and the rest resides in another. Often you simply can't combine the two systems to get what you need; sometimes you can get what you need only if you keypunch data from one system into the other. What M+H can provide in these cases is an interface.

Computer systems take input, process that input and give output. Interfacing is the act of routing the output of one computer system into the input of another. If one computer can produce output and the other computer can take input, then we can make an interface between them. In extreme cases, we fall back on creating interfaces that appear to the target system to be very fast human typists who don't make many mistakes. This is a rather elaborate way to go, but sometimes there is no other choice.

We have experience with serial interfaces, with dial-up interfaces, with TCP/IP based interfaces, including HL7 interfaces for health care data. We have written batch-oriented interfaces and real-time interfaces. We have scrubbed screens and written data-entry bots which used User Interfaces by pretending to be human users. We have grokked backup tapes and cracked defunct proprietary database formats. Inelegant? Yes. Ugly? Perhaps. Effective? Most certainly.

### 3. DATA CONVERSION

Data conversion is essentially a one-time interface and we do lots of those as well. Conversions are often cheaper than interfaces, since conversion don't have to be repeatable or automatic or easy to run.

### 4. ELECTRONIC DATA INTERCHANGE

EDI is business-to-business data interchange. By combining our computer interfacing toolkit and data conversion toolkit, we can build systems which exchange data between different companies. Typically, our EDI systems send electronic invoices to bulletin board systems and retrieve acknowledgements and

error reports. Thanks to our scripting software, these transactions can be done without human intervention. Often, retrieved data is automatically reformatted as HTML and presented on the client's intranet, allowing departmental access to the information.

## 5. CUSTOM INFORMATION SYSTEMS

By "custom information systems" we mean the development of custom solutions which include *data acquisition* (either a User Interface, a Computer Interface, or both), *data storage* (a database design and implementation) and *data retrieval* (reports and screens and Web pages).

Usually, we start with systems analysis to determine both what you need the new IS to do and how the new IS fits into your existing information infrastructure. This process usually consists of a single meeting, the result of which is a brief *Scope of Work* definition and a proposal from M+H to the customer.

Sometimes there is some back-and-forth about the scope of work which results in revised prices in the proposal. We favor fixed-price engagements, if the work to be done is well-defined enough to permit it. Otherwise we work on a time-and-materials basis.

Once the scope of work and proposal are accepted by the customer, we begin the development process which results in a beta-test version (we test the alpha-test version in-house) which is then put through whatever acceptance testing we have agreed upon with the client.

After acceptance testing, the first version is released and documented and the users are trained.

## 6. DATA PRESENTATION

By "data presentation" we mean the transfer and reformatting of data so that the consumer can *access* the data more readily and *use* the data more effectively.

For example, we have written programs to analyze database contents and make PostScript printable images or Web-viewable files in Adobe's PDF® (Portable Document Format) file format. This allows people who only want to refer to the contents of a database to do so quickly, safely, portably and without stressing the database server.

We have worked with in-house programming staff to develop and deploy a Palm Pilot® application to provide easy reference to the contents of a enterprise database.

We have reformatted database contents to recreate reports which were lost when one information system was replaced with another, so that the internal users could go on getting information in the formats to which they were accustomed.

We have translated legacy printable images, such as PostScript files, into structured text, such as XML and HTML, to allow existing documents to be displayed on the Web instead of requiring that those documents be printed and shipped to the consumer.

## 7. DATA PROCESSING

Unsexy as it might be, there is still lots of old-time data processing to be done and we have decades of experience doing it in the financial, health care and publishing fields.

Since data processing needs vary so much from industry to industry, and since our customers don't like us talking about what we have done in this area even obliquely, we can't provide much in the way of examples.

One innocuous example is the running of health care claims records through our batch grouper to assign a DRG and to mark records with errors--invalid principal diagnosis, illegal age, etc--so that the client's own in-house systems can process the results.

## 8. CONCLUSION

If you feel that our services and your needs are a good fit, please contact us using the information on our [Contacts](#) page. For those of you reading the automatically generated PDF of this document, our contact

information is provided on the first page of the PDF.