

Personal Capabilities

Thomas Bolioli possesses a great diagnostic ability, combined with initiative and drive, which allows him to work through very large and difficult problems. This is in part due to the creative approach Thomas Bolioli takes towards his work and life in general. Thomas Bolioli has strong interpersonal and communication skills while possessing a strong work ethic with a high motivation to succeed. Thomas Bolioli seeks out and meets challenges using strong analytical skills and a propensity for learning new skills to adapt to changing situations. Work with diversity and the need for reasoned thinking are his preference.

Key Technical Skills

Platforms

- Windows 3.1/9x/ME
- Windows NT/2K/XP/Vista (Server & Desktop)
- SCO/BSD/Sun Solaris Unix
- Linux
- Mac OS (X and pre X)
- Novell Netware/NDS

Languages

- Java
- SQL
- DHTML, XML, XSL/T, Javascript
- Perl
- PHP
- C/C++
- VB.NET
- Shell Script

Certifications

- Microsoft Certified Professional (Windows)

Software/Administration

- Arc IMS/ArcView GIS (NT and Solaris)
- MySQL (NT and Solaris/Linux)
- Oracle (NT)
- Apache & mod_perl, (NT and Solaris/Linux)
- iPlanet Web/Mail/LDAP Servers - (NT and Solaris)
- Adobe Photoshop, PDF, Image Ready
- Sun One/Forte, MS Visual Studio
- Macromedia Dreamweaver
- Filemaker Pro
- Real Audio Server and Encoder
- Mathematica
- EZ Save

Misc

- LDAP
- IMAP
- Kerberos
- AD/NDS

Professional Experience

Terra Novum, LLC**May 2001 - Present**

President & CEO

Thomas Bolioli is the founder and CEO of Terra Novum, LLC which specializes in Environmental Information Technology and Energy Efficiency of electronics, PCs and other office and back office equipment. For the last 6 years Mr. Bolioli has served as a technical advisor to the EPA ENERGY STAR program on the energy efficiency of IT & other electronics. Prior to that Mr. Bolioli has held positions managing small & large

business networks, web development and programming, of which he is proficient in a wide array of programming languages.

In support of the EPA, Mr. Bolioli has worked with everyone from Fortune 500 clients to small businesses to promote the use of monitor and computer power management in the enterprise. Currently Mr. Bolioli is working with a team of experts on the development of the Tier 2 Computer Specification (having assisted on Workstations in Tier 1) as well as specifications for Digital Television Adapters and Advanced Set Top Boxes. Terra Novum provides a broad range of IT experience and services ranging from web development to data storage and analysis.

Environmental related consulting:

ENERGY STAR Specification Development

Terra Novum has helped draft the Tier 1/MOU 4 Computer Specification, The Digital Television Adaptor specification and the Advanced Set Top Box specification. Terra Novum provided technical support to these initiatives and continues to do so.

ENERGY STAR's Million Monitor Drive

The Million Monitor Drive is a project aimed at having business and home PC users enable monitor and computer power management to increase energy efficiency and thereby increase air quality and decrease carbon emissions. As a subcontractor providing the computing expertise to the project, Terra Novum engineered alternative software solutions (leveraging existing infrastructure such as AD, NDS) to those originally offered by ENERGY STAR when it became clear that larger companies were not interested in the then current offerings. As a result of this, large companies began to adopt the technology and the projects goals went from 100,000 monitors addressed to 2 million monitors addressed. This contract has been extended through 2009 and Thomas Bolioli has developed an open source C++ based "GPO Tool for Power Management" for companies leveraging Active Directory or NDS/Zenworks to save energy and money using PC power-management. Terra Novum is also responsible for providing no cost (funded by the EPA) technical support to companies including Fortune 500 network administrators who are deploying energy saving solutions enterprise wide. Thomas Bolioli has become a leading authority on energy efficiency with regards to computer and electronics power management and has leveraged this knowledge on projects such as NYSERDA's Governmental Energy Efficiency Program (GEEP) and the NY State Smart Offices Program for plug load efficiency.

Demographic analysis of land use in Rhode Island

Using age structure deviation analysis (a technique pioneered by Thomas Bolioli) and a decomposition of changes in population by age group, it was concluded that a significant portion of Rhode Island's problems with high levels of development is due to

demographic effects. This study suggests programs designed to stop sprawl should focus on specific age groups in a population to create more tailored programs. It was also determined that suburban sprawl is intimately linked to population growth displaced in time by about 30-40 years.

Massachusetts Technology Collaborative's Massrenew Solar Renewables Initiative

Among other IT tasks related to the Production Tracking System, Terra Novum worked on designing a system (partly from commercially available components) for having automated meter reading (AMR) by a central server from renewables meters located across the state of Massachusetts. The key to the system was to not have the MTC provide/dictate all of the technical solution from meter to aggregator. Instead, Thomas Bolioli suggested using a mixed market/technical solution leveraging what market for AMR existed to provide as much of the technical support and have the MTC fill in the holes by developing open source software that can be freely used by any market actor in renewables AMR. The program has been a huge success and is being looked at as a model in other states.

Brown University Center for Environmental Studies ArcIMS Internet Mapping Project

Terra Novum designed and installed an Arc IMS solution for the Brown University Center for Environmental Studies where students and staff use the system to serve interactive GIS maps related to their research to the entire world. Part of the system is set up to do web based surveys in an easy to use fashion.

Custom GIS based Phase I Site Assessment Tool

Terra Novum developed a custom GIS tool for automating the process of developing Phase 1 Site Assessments for property development. The tool pulled down CERCLIS, ERN, RCRA, TRI and Judicial Docket information from the EPA mainframe and geo-coded that data to produce detailed geo-spatial references, maps and full detail reports for a property by just inputting an address or Lat/Long coordinate.

NYSERDA's Government Energy Efficiency Project (GEEP) for energy efficiency

Terra Novum was involved in a pilot project to bring the experience gained in it's involvement with Energy Star's Million Monitor Drive to the government agencies in the State of New York. NYSERDA went ahead and funded a program based on the pilot that expanded the program to include office equipment and other common plug load items. Terra Novum provided the technical expertise for the entire computing portion of this new contract.

General Consulting:

Web development work for clients such as Normandeau Associates, the American Academy of Dramatic Arts, National Network of Accountants and others inside and outside the environmental industry. This work included everything from programming e-commerce solutions with credit card transaction support and other data collection/processing capabilities. For one client, Thomas Bolioli created an automated job listing management system to assist in their online recruitment activities and also created an automated resume management system for their internal use so proposal writers could better leverage internal skills when bidding and fulfilling contracts for their private and government clients. Also, work was performed in general network administration support, systems design and training manuals/sessions.

Brown University***Sept. 1999 to May 2001*****Lead Systems Programmer/Admstr.****May 2000 – May 2001****Web Applications Developer****Sept. 1999 – May 2000**

Originally part of the Web and Instructional Applications group designing various web applications (primarily SQL backed mod_perl apps under Apache and CGI under iPlanet) for various departments across campus. Thomas Bolioli was promoted into Systems as a programmer/administrator in May of 2000. Thomas Bolioli designed, developed, tested and implemented a Directory Synchronization/NetID Life-Cycle Maintenance solution (using a mix of COTS and in house code) to link the university mainframe to all production systems (such as IMAP/LDAP/Kerberos/NDS/AD) to synchronize user objects (18,000 users) between all systems. Designing this system was not a straightforward task due to the fact that the current system was fundamentally flawed and could not be used as a model nor did commercial systems satisfy the requirements. The end result was a flexible and robust system utilizing open standards. Installed and administered iPlanet web servers running on NT and Solaris both serving up Java based ArcIMS GIS data maps. Additional other duties included administration and deployment of a variety of systems used by Brown including compiling and administering various software packages. This work experience had a great deal of opportunity for independent judgment and decision making by myself.

National Music and Entertainment, Inc.***Jan. 1998 to Aug. 1999*****Online Editor and Website Administrator
(www.musicyellowpages.com)**

Maintained and developed upgrades for a major online directory for the music industry. Thomas Bolioli supervised two assistants whose work was to assist in graphic design and

HTML coding maintenance. Designed CGI applications to administer and maintain the site as well as collect user driven data that was being produced. Thomas Bolioli was responsible for maintaining the font library and some type setting work related to ad placement in the print directory. Other duties include design and administration of other various music related web sites. Also performed system maintenance and installation of the Mac desktops.

Easysoft Integrating Technologies, Inc. Oct. 1996 to Dec. 1997**IT Consultant to small business**

Designed, installed, upgraded and maintained networks and network operating systems based on Windows 95, WinNT, Novell, and SCO Unix systems. All hardware, software and OS maintenance as well as On-Call, hardware/software/network troubleshooting. Internet publishing, Microsoft Certified Professional and Intel IPD Training. Installed, maintained and upgraded internal networks as well as Internet connections (56k Frame Relay - T1).

America Computer Design***Jan. 1994 to Sept. 1996*****PC Technician**

Diagnosed and repaired a myriad of desktop and Novell file server issues. Desktops were a mix of DOS and Windows 3.1. Diagnostic responsibilities included both software and hardware issues.

Education***Brown University***

Providence, RI

MA Environmental Studies

:1999-2001

Adelphi University

Garden City, NY

BA Environmental Studies/Anthropology

:1994-1998