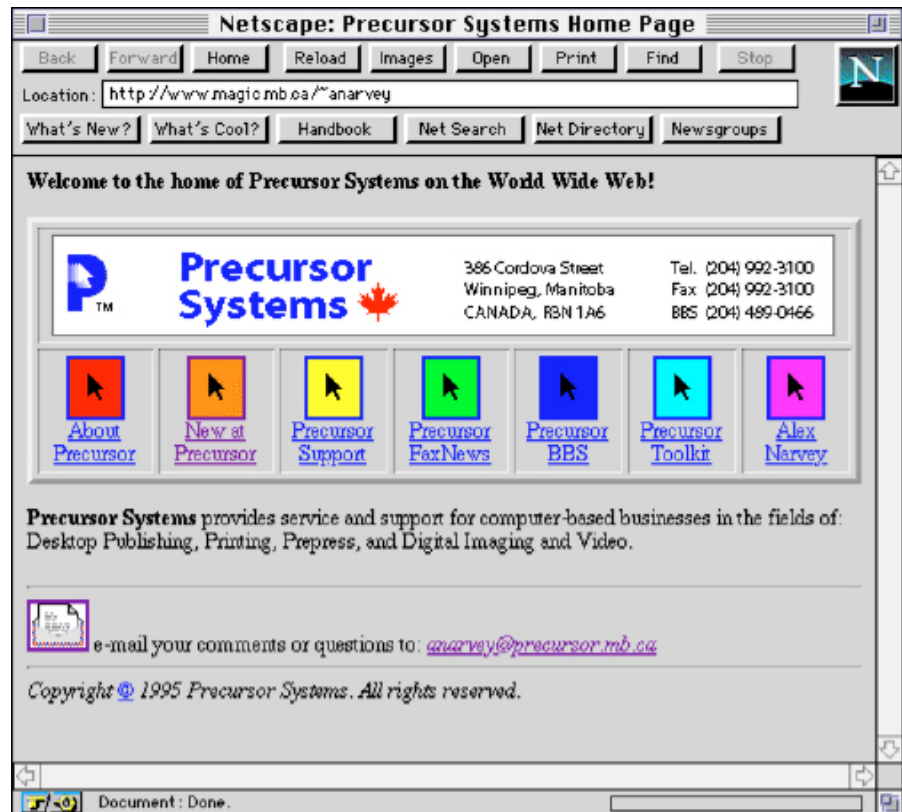# Precursor's WebSite Odyssey *

The Precursor web site debuted on July 9, 1995 and was based on the technology of the day served up by WebSTAR and had an homespun URL to match at the now defunct service <magic.mb.ca/~anarvey>. It was a carry-over from our earlier work with bulletin board software and had that design ethic.
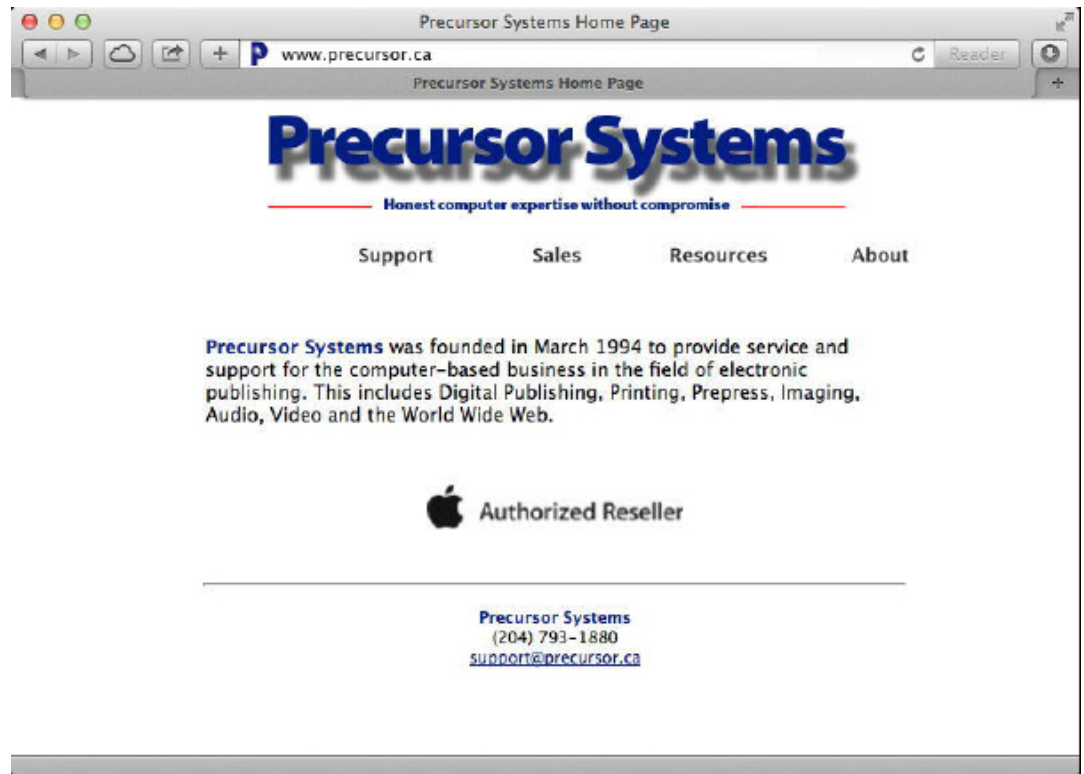

The site began to evolve quickly away from its BBS influence after I met the author of Net-Cloak at an early MacWorld Expo and began incorporating it into the site. Over the years the website graduated to become more web-centric in its scope and acquired domain based urls like <precursor.mb. ca> and finally when the CA registry opened and allowed it: <precursor.ca>.

Precursor's inaugural web site in 1995

We were using QuickTime movies on the site as early as 1995! And continued to integrate a number of technologies including FileMaker since the late 1990's. Eventually we acquired our first domain name: "precursor.mb.ca" and in when the Canadian domain name registry allowed we moved on to "precurosr.ca". The web site really hits its stride in 2004 when we stopped sending out PDFNews and began our modern, complex html newsletter that had extensive integration with FileMaker and NetCloak on our website.

Precursor web site circa 2004

Precursor's iPhone app

But after 20 years of piecemeal evolution it was time for a wholesale revamp! In the era of mobile touch devices like iPhone and iPad the content, code and design were in urgent need of some TLC. We began by creating a special web app just for the iPhone's iOS in 2013 and redesigned it entirely for Apple's new flat design ethic in iOS 7. With that under our belt we were ready for the big enchilada - the main web site! It needed to be rebuilt for not only for content but also for navigation that worked properly for touch devices like iPad.

We've always believed in doing our web-site ourselves, but to get the best look for all mobile devices we first experimented with a WordPress template designed especially for I.T. firms. Although that provided strong design that carried over across devices it lost much of the custom functionality we have built into the web-site with FileMaker and Net-Cloak. And it seemed like every time I modified one little thing in Word-Press it had some negative effect on some other thing. So rather than throw the baby out with the bathwater we decided to hand-code the whole shebang from soup to nuts all over again using our existing code as a base and our favourite coding tool BBEdit!

The web site was extensively redesigned both visually and functionally. The underlying code has all been painstakingly hand modified and up-dated from HTML 4 Transitional to HTML5 with CSS3. Links were verified and page code was been validated. And we maintained our extensive use of PHP, Javascript, FDML, and broad FileMaker integration.

We included tie-ins to all our social sites including our presence on Twitter, Facebook, Google+, LinkedIn, Tumblr, and Yelp! And we re-edited every page's keywords and descriptions for Search Engine Optimization and provided meta tags for Apple, FaceBook and Twitter.

When we were finished we verified all the links and validated all the pages using internet-based tools.

When it was all said and done, the actual code had been reduced by astonishing amounts. Our very complex customized client page made extensive use of not only CSS3 but also NetCloak macros and variables, and PHP includes, and was reduced more than 90%!

NetCloak

But although we had extensively upgraded our code for the purposes of displaying the page, the underlying architecture was still based on the NetCloak plugin we started with in the late 90's. Maxum stopped developing NetCloak after macOS 10.5. While we were able to patch it up to run on 10.6, when the computer that was serving our workaround died we had to find another older computer to run that operating system. And then, when that second computer started gasping we moved the whole kit and kaboodle into a virtual machine so that NetCloak could still run from a modern computer.

The problem was security. NetCloak required older versions of both OS and of the apache web service. So in 2017 we finally bit the bullet and redeveloped the entire site so that all the macros, forms, customizations, counters, and all the other logistics were handled using more modern methods.

The NetCloak macros got handled by Apache Server Side Includes. The customizations and the forms were re-architected using PHP. The counters and the intelligent login required customized Perl scripts.

It was a huge job! But when it was over we had the web site running off a secure version of Apache and PHP. In fact, we took the opporunity to make the entire site HTTPS security certificate compliant.

The entire site is served via HTTPS for secure communications

And what we learned from that effort had other benefits. We were able to add the much requested ability to send screen shots with the Precursor Trouble Report Form. The Touble Report Form is also faster and much more reliable than the NetCloak version which sometimes held messages in the Queue for unknown reasons.

And, all that PHP work helped us understand enough about the mysterious REST API that we were able to hook up our FileMaker customer service database to our ZenDesk account using RESTfm and create linkages between the Trouble Report Form and the Work Report PDFs that are sent to the customers' technical contact - all saving us huge amounts of time in reporting while cutting down drastically on the overwhelming ZenDesk traffic.

The web keeps evolving and the Precursor.ca web site keeps evolving with it.

Precursor Systems was founded in March 1994 by Alex Narvey to provide support for computer-based professionals in the Publishing, Printing, PrePress, Digital Imaging, Audio and Video industries.

More information is available at our web site:
http://www.precursor.ca/