

# Solution Overview

e Q u o r u m C o r p o r a t i o n

## Focus on



## YES, PLOTTING IS STILL IMPORTANT!

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It doesn't seem all that long ago that the futurists were predicting the "paperless workplace". When CADD started taking off in the late 1980's, the possibility seemed probable. What was missing was the technical infrastructure to support the concept of dealing with documents online. What progress was made while automating much of the design process in the late 20th century? We used record amounts of paper — now, instead of one "original" per drawing, every time a change was made, a new copy was plotted for review. Not everyone in the office had the ability to review online, and the senior staff doing the reviewing were

resistant to this new technology — not to mention the lag times of licensing and code officials adopting standards that addressed online review. That said, what is the point of this product bulletin? Well, first and foremost, it is to emphasize that paper isn't going away any time soon and that eQuorum is committed to updating our plotting solutions to help you plot what you need as quickly and efficiently as possible, taking advantage of features and functions of many new state-of-the-art plotters and printers. Additionally, plotting



isn't just to paper anymore. We can help you plot to file or to the web so you can begin your journey to a "less-paper" workplace.

### PLOTTING ISN'T ALWAYS CADD->PAPER

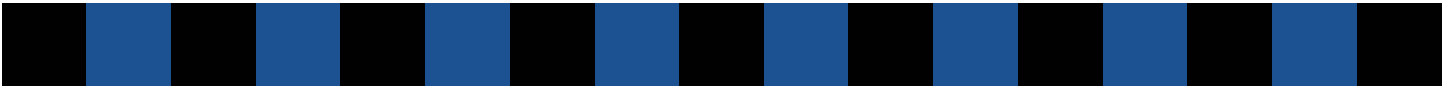
- Convert CADD Files to Adobe Acrobat PDF Files
- Convert CADD Files to TIFF or CALS
- Convert TIFF Files to PDF
- Send PDF Files to any Plotter

## WHAT ARE MY OPTIONS?

There are a number of plotting solutions available to today's CADD user. Simply using the "Plot" or "Print" command inside AutoCAD® or MicroStation® is familiar to most users. Most of today's plotters also come with software to enable

advanced functionality, such as collating, folding or media selection. These tools probably meet the needs of a small office running only one CADD application to one plotter type, but dealing with different methods depending on which applica-

tion/plotter combination starts to become a management challenge. That's where eQuorum's Plot Station® shines. Common user interfaces allow users to quickly and easily plot any file to any plotter with ease.



## WHAT IS PLOT STATION®?

**Plot Station is used by more than half of the top 10 ENR Design Firms, BD&C Architects, BD&C A/E Firms, and BD&C E/A Firms.**

Plot Station is a network plotting solution that allows you to plot an assortment of file types to just about any printer or plotter without entering the files' authoring application(s). It is especially well suited to companies that need to print sets of files repeatedly over the course of a project's life cycle.

Note that Plot Station is a "solution," not simply a product. The solution is made up of several components... some software, some hardware, and some consulting. eQuorum has been involved in providing plotting solutions since the mid

1980's and has a staff of qualified analysts that understand how to implement Plot Station into your environment in a way as to make your job easier and your company more efficient.

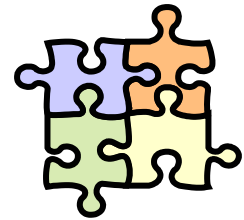
What, then, are the pieces that make up Plot Station?

First, there's Plot Station Server — a piece of software that runs on a dedicated PC running Microsoft Windows NT Server or Microsoft Windows 2000 Server, sold and configured to handle your file types and your output devices.

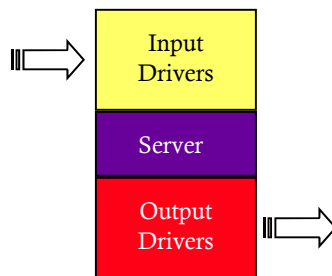
Then, there's Plot Station Cli-

ent. This includes four individual pieces of software that lets you request plots from within AutoCAD, MicroStation, or just from a Microsoft Windows environment... it lets you preview, too.

How's it all fit together? That's where we're going now.



## PLOT STATION SERVER



Plot Station Server is the core piece of software that controls plotting throughput on your network. It knows what file formats to accept (Inputs) and where to send the result (Outputs). Some pieces you'll always have — other pieces are optional, depending on your needs.

We developed our own queuing mechanism to give you more flexibility in deciding how and

when to process jobs and where to send them when they're done.

Say a user just put together a job and sent it off to a plotter that is down for servicing... Plot Station Server's queuing tools allow the administrator (or anyone else with privileges) to move those already-submitted files to an alternate device.

Queues can be paused or scheduled to run at specific times to maximize performance.

Centralized symbology tables allow the administrator to control the level of drawing standards enforcement. You can maintain consistent-looking output from all your offices.

A single set of configuration files can be used by multiple Plot Station Servers, allowing load balancing and redundancy.

## PLOT STATION SERVER—INPUT DRIVERS



Just what is it that you want to plot? CADD files, TIFFs, PDFs, Plot Files, other Windows applications? That's where input drivers come in. Input drivers correspond to the source files for your plots.

Some input drivers handle a single file format, such as

Adobe PostScript® or Acrobat®. Others handle multiples, such as the "Universal Raster" driver that handles most standard raster file formats, as well as some proprietary ones like Intergraph CIT, COT and RGB.

Then there are the CADD input drivers. They will handle the

CADD files alone, or the CADD files with raster reference attachments.

There is also an input driver available to allow you to plot from within any Windows application to any Plot Station output.

## PLOT STATION SERVER — OUTPUT DRIVERS

As mentioned earlier, Input Drivers dictate what formats you can plot *from*. Output Drivers, then, control what formats and devices you can plot *to*. People usually think of the plotting process resulting in a paper image. We take a broader view — plotting is really a conversion process. We take a file from one format, whether it be a CADD file, a PDF, etc. and convert it to a paper image or a “digital plot,” that is, a file that can be viewed with commonly available software.

We write our own output drivers so we can control every dot

on the plot — that way you are more likely to get the same output regardless of the plotter used.

eQuorum has a number of different types of Output Drivers:

Device-specific drivers, as the name might imply, are written for a specific hardware device and have special controls and configuration settings to take advantage of the advanced features on those devices. These features might include folding, collation, and media selection. Examples of device-specific drivers would be those for the

XES Synergix and the Océ TDS product lines.

Generic drivers output standard, well-documented output formats and can be used on many common device-types. For example, PCL/5 output can be used for most small format laser printers and HP-RTL can be used for most large-format inkjets.

Plot Station also lets you output to file, in order to create digital plots for archiving or electronic distribution. Output drivers in this category include PDF, TIFF and CALS.



## PLOT STATION SERVER— MANAGEMENT TOOLS

Plotting is not the most exciting part of the design process, but without it, it can be quite difficult to convey the design intent to the many clients, consultants and manufacturers that need to take part in the “building” process, whether that be on the shop floor or construction site.

So, when the deadlines loom to get the design distributed, the pressure is on the plotting system.

Plot Station Server provides a monitoring tool that allows you to see what’s going on with all the Plot Stations on your network. You can shift jobs manually from one server to another or configure all the servers to work in concert with one another in order to maximize throughput with all available resources being used optimally.

Plot Monitor can run anywhere on the network and gives you

the control you need to avoid most problems. For the inevitable problem that still occurs, you are notified promptly so corrective action can be taken.

Plot Configuration lets you quickly define the parameters to be used when processing a job. Implementing corporate plotting standards is a snap with Plot Station’s Drawing Attribute Tables and Pen Tables.

### PLOT STATION EXTREMES!

#### Two customers, two approaches:

- 1) From a single Plot Station Server, plotting to over 250 devices (mostly small-format) at 50 locations on the WAN.
- 2) Using 5 Plot Station servers, working in concert as one, supporting 30 wide-format plotters. Up to 4 of the servers could go down and the only effect would be speed of throughput.

What’s the right configuration for you? Ask us.

## PLOT STATION SERVER — DATA TRACKER

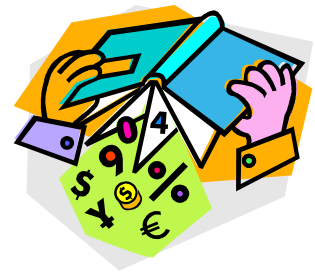
Plot Station Server includes the ability to capture up to 25 attributes for every plot job it processes.

Tools are provided so you can select which attributes are important to your company and to allow you to use that data to either report how the plotting

resources are being used or to use it as a means for reimbursement.

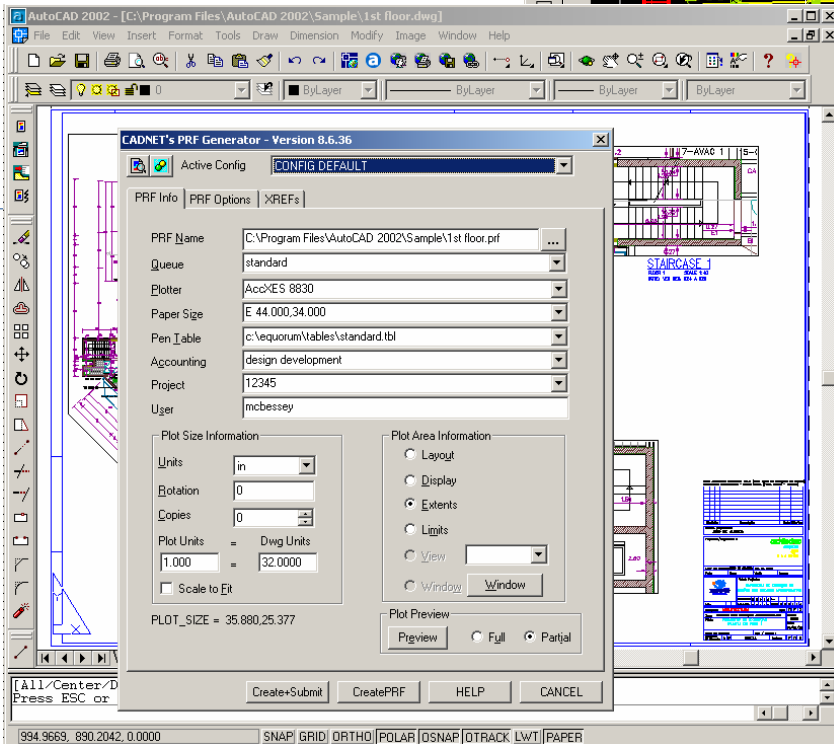
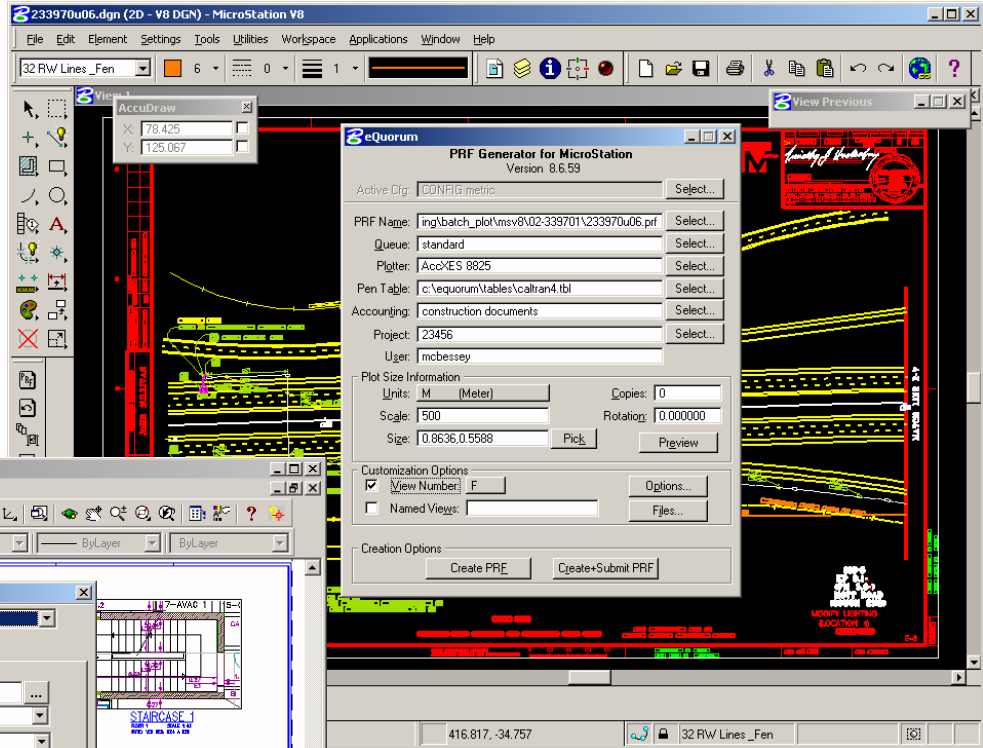
Plot Station Server works in concert with Plot Station Client to let you control whether or not plots get processed without specific accounting information being present with the job.

The Data Tracker module takes the raw data generated by Plot Station Server and converts it to either a Microsoft Access® database file or to a Microsoft Excel® spreadsheet, allowing you to generate accurate plotting reports or invoices.

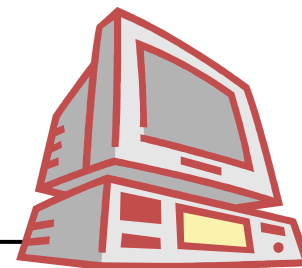


# PLOT STATION

Notice the similarity between the User Interfaces for AutoCAD and MicroStation. Accounting fields can be made mandatory, preventing the user from submitting a plot without valid accounting data.



PRF Generator for MicroStation lets you accurately set plotting parameters to ensure repeatability

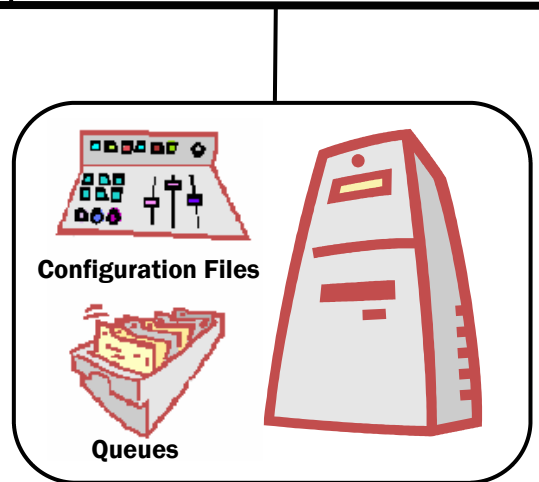


**MicroStation Client**

PRF Generator for AutoCAD lets you submit plots as well as create repeatable plot requests from within AutoCAD.



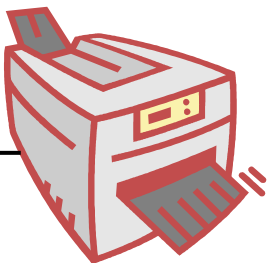
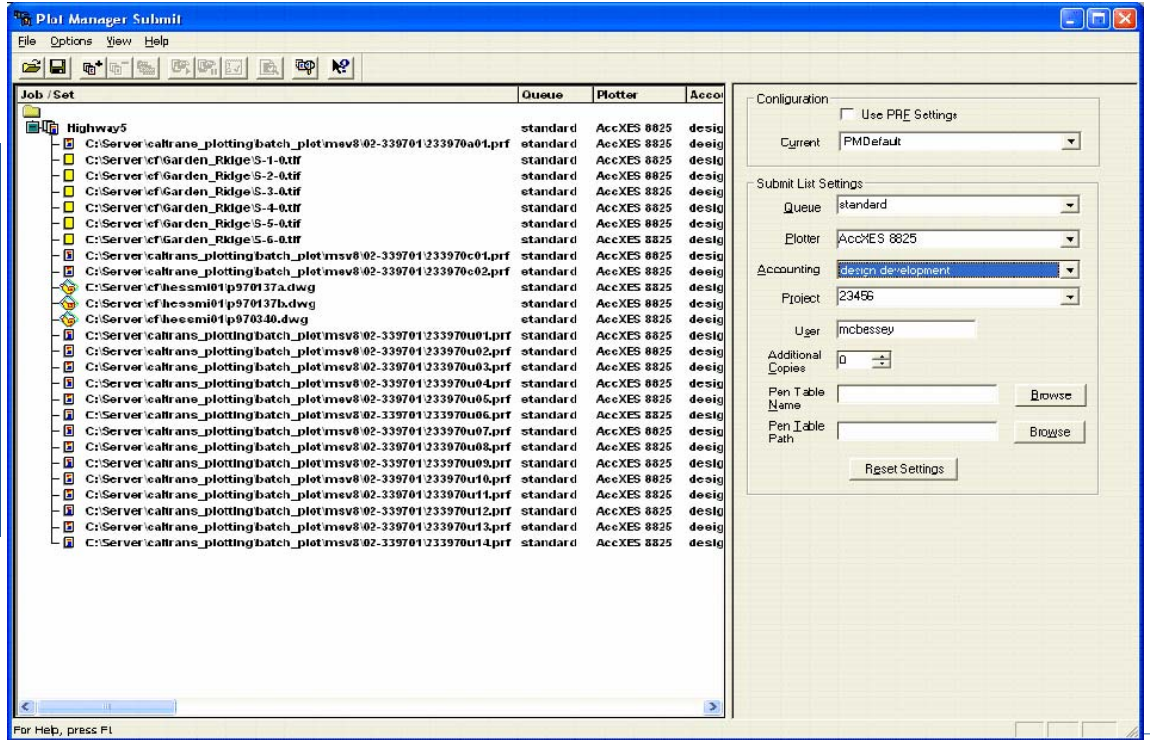
**AutoCAD Client**



**Plot Station Server**

# HOW IT ALL FITS...

Plot Manager Submit gives you the tools to create sets, even with mixed document types. These sets can be saved and submitted again and again through the life of your project.

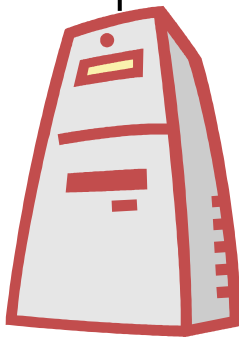


**Network Printer**

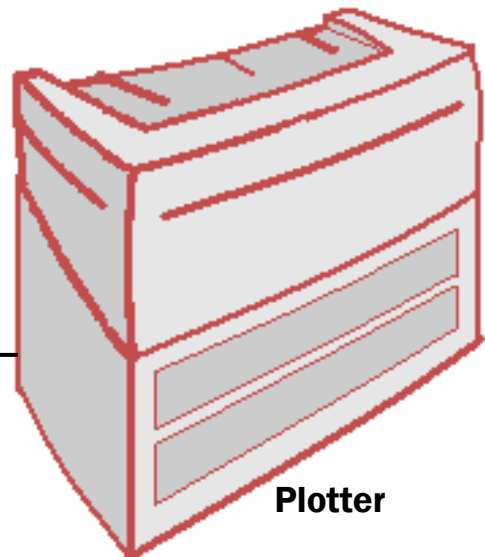


**Windows Client**

Plot Station also has a driver to let you plot and capture accounting information from any Microsoft Windows application.



**Network File Server**



**Plotter**

## PLOT STATION CLIENT



As the name indicates, Plot Station Client is the part of Plot Station that lets you submit files from your client PC to the Plot Station Server in order to get your plots. It also has the ability to let you accurately preview your plot to make sure that you get what you want.

Plot Station Client is actually a collection of four pieces of software: Plot Manager; PRF Generator for AutoCAD; PRF Generator for MicroStation and Plot View.

Depending how you have your

office network set up, you may not always install all the pieces of Plot Station Client on every engineer's workstation. If you only had AutoCAD loaded on a given PC, you wouldn't load the PRF product for MicroStation and vice-versa.

Even though these programs get installed on individual workstations, they look to a central network location for configuration information. That means it only gets configured once, and then the configuration is available to everyone on

the network. As you add new users, the software is simply installed, pointed to existing configuration files, and your user is ready to go.

The individual products can also share account and project lists to ensure that all users are always using current accounting information.

## PLOT STATION CLIENT PRF GENERATOR FOR AUTOCAD

**“Multiple PRFs can be created for a single file, allowing you to easily plot multiple layouts...”**

It is pretty obvious that a product called PRF Generator probably creates PRFs. So then, what's a PRF?

A PRF is a Plot Request File — a file understood by Plot Station Server as a set of instructions and parameters needed to generate the plotted output. It is created within an AutoCAD design session. Items in the

PRF include things like the area to be plotted, displayed layers, what reference files are attached, the plot scale, project and accounting information and more... the sort of things you would have to define if you were creating a plot from within AutoCAD.

The PRF is just an instruction set with pointers to current

versions of all referenced files, so a PRF created last week and submitted today will generate a plot with this week's changes included.

Multiple PRFs can be created for a single file, allowing you to easily plot multiple layouts — maximizing your ability to utilize AutoCAD's newest features.

## PLOT STATION CLIENT PRF GENERATOR FOR MICROSTATION



PRF Generator for MicroStation provides tool palette for quick access to PRF Commands.

PRF Generator for MicroStation is an MDL application that runs within MicroStation and is similar in concept to PRF Generator for AutoCAD.

The PRF contains scale, rotation, level, and file information along with project and accounting data.

If your MicroStation users create multiple drawing sheets within a single design file, PRF Generator for MicroStation lets you create separate PRFs for each drawing sheet.

PRFs give you controlled repeatability. If the file is set up correctly when the PRF is cre-

ated, it will plot correctly next week, regardless of whether the last CADD designer left it with incorrect displays or levels on.

Batch plotting is a snap when all the plotting decisions have already been set — simply submit the PRFs and collect the plots.

## PLOT STATION CLIENT PLOT MANAGER

Plot Manager is perhaps the most powerful piece of a Plot Station installation.

Plot Manager Submit lets you assemble, maintain and batch-plot entire engineering plot sets using data in multiple formats. You can build these sets by using the integrated file browser or by dragging and dropping from Windows Explorer.

Once in the set, you can easily add, delete, reorder and modify the properties of individual or multiple plots. You can then save the set for simple re-

submission throughout the life of the project.

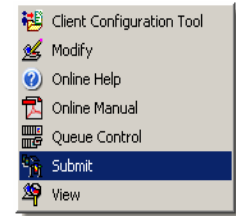
As with the other pieces of Plot Station Client, you can access centralized accounting and project code information for accurate accounting capture and prevent submission if it is not present.

Once the files have been submitted, all processing is done on the Plot Station Server, letting you get back to work with all your resources available.

In addition to the Submit mod-

ule, Plot Manager includes PRF View and Modification tools.

A Queue Control user interface is also provided, allowing you to see where your job is in the queue. If you've got the necessary privileges, you can also reprioritize a job, hold it, or delete it altogether.



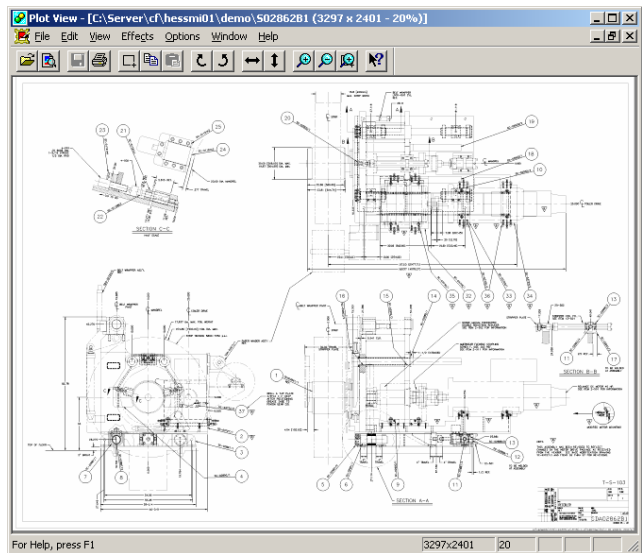
Access to Plot Manager modules provided via the Start menu

## PLOT STATION CLIENT PLOT VIEW

Plot View is a true plot previewer than can either run standalone or be called from within Plot Manager or one of the PRF Generator products to make sure that you get what you want when you send a plot request.

Because Plot View uses the same internal processing engine as Plot Station Server along

with the actual plotter configuration and symbology tables, the result you get from a preview request is processed in precisely the same way your plot will be processed — virtually assuring you that your plot will come out as expected.



## AUTOMATIC VS. ATTENDED PLOTTING

With the advent of new multi-function devices that scan-to-copy, scan-to-file and plot, a conflict has arisen between the engineers trying to plot and the print room staff trying to copy on the same machine.

Other devices, such as small-format laser jets or inkjet plot-

ters are always used for plotting and don't have to be shared in the same way.

eQuorum has designed Plot Station to work in both environments:

When sharing a print room device, plot jobs can be submitted at any time, held in the

queue, and then can be released when the device is available. If desired, the print room attendant can even redirect the job to a more appropriate device.

The same Plot Station Server can be configured to send jobs to other devices directly without any intervention required.

**“When sharing a print room device, plot jobs can be submitted at any time, held in the queue, and then can be released when the device is available.”**

**e Q u o r u m   C o r p o r a t i o n**

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**The experts in document distribution**



eQuorum was formed in 1999 through the merger of two established companies: CADNET Corporation, in business since 1987, and Image Machines Corporation, in business since 1988. Both of these companies were well-respected in their particular markets — CADNET was well-known for its productivity-boosting plotting solutions, and Image Machines was recognized for its raster editing, imaging, and document distribution solutions.

Integrating the products from both companies gives our customers greater control and flexibility over the management, collaboration, distribution, and printing of their business documents, including complex images and large format technical drawings.

## A STEP TOWARDS THE “PAPERLESS” WORKPLACE...

The “Paperless Workplace” is still several years, perhaps decades away. Today, however, eQuorum has some technology that can help you to achieve the “Less Paper” workplace.

ImageSite®, our web-based product, uses much of the same underlying technology found in Plot Station, but instead of outputting paper, we publish the images to the web server, where they can be viewed with just a browser —no plug-ins required

If you should still need paper copies, you simply select the images to be printed and submit them to the Plot Station Server that is an integrated part of ImageSite and collect your pa-

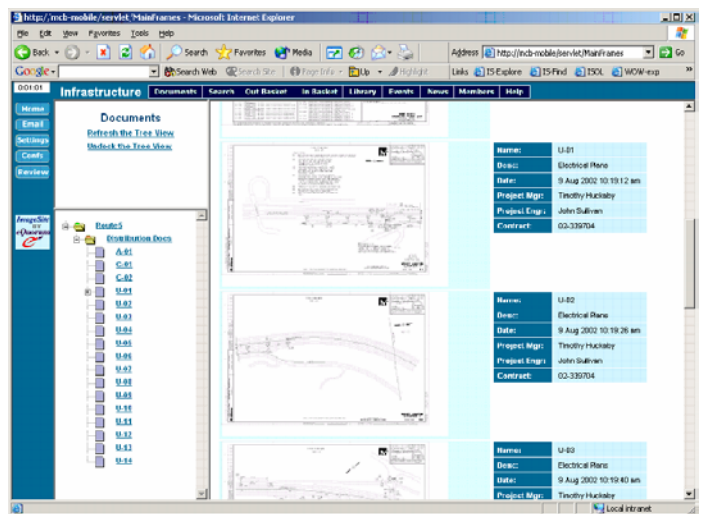
per plots.

This “Less Paper” strategy allows you to direct document consumers to the images, rather than the current method of sending images (plots) to the consumer. In many cases, the robust viewing and markup utilities within ImageSite will be adequate — but if you still need paper, it’s only a few mouse clicks away.

ImageSite also allows you to start archiving your projects in its secure data repository for future retrieval — you can then search for files based on your custom attributes and view the drawing instantly, on-line. ImageSite has too many fea-

tures to list them all here... contact eQuorum for more information — or request a test

drive at : <http://online.equorum.com>



Search for and view digital plots with just a web browser