

# Our Content Contributors



**Author: Konstantin Koshelev**  
**Senior Vice-President**  
*Konstantin Koshelev joined BarkerBlue in 2007 as a digital asset technician, and quickly rose through the ranks to lead the entire digital assets team.*

*In 2011, when a confidential tech client faced the challenge of building one of the largest and most innovative office structures in the world, Konstantin co-authored a workflow plan that helped solve their complex data challenges. His sophisticated plan was used successfully on the \$5b project recently completed in Silicon Valley. Since then Konstantin created the 2.0 version of this model, converting the plan from a manned to a remote version. This advanced version is currently being deployed by BarkerBlue on many of the largest most complex projects in California and beyond.*

*Konstantin also oversees BarkerBlue's Strategic Partner Program, working with leading tech companies like PlanGrid on seamless project solutions for general contractors, building owners, and others. With Konstantin's skillful oversight of BarkerBlue's Digital Assets and Professional Services, the company continues to streamline construction information solutions, eliminating multiple data pitfalls that construction companies struggle with as they adopt new and rapidly-evolving applications and technology.*



**Editor: Anne Grenier, Marketing Director**  
*Anne joined BarkerBlue as Marketing Manager in 2017. Anne brings over 25 years of integrated marketing experience from a variety of companies. She worked previously with AT&T Advertising, SBC Interactive, and YP Marketing Solutions*

*where she expanded awareness and usage of both B2B and B2C digital products. Some of her prior positions include: Regional Brand Manager, Senior Product Manager, Market & Sales Support Manager, and Product Development Manager. Her early career began at Sunset Magazine, where she wrote marketing articles and trade publications, and at Interactive Market Systems in New York, where she sold and trained top ad agencies on marketing and media plan applications.*



BarkerBlue is the leading construction information manager of all major digital-collaboration and mobility-solution platforms. We consult for developers, owners, and general contractors to determine the optimal document workflow for their company and tailor our solution as needed to each individual project.

## DIGITAL PLATFORMS SUPPORTED



## OUR RESULTS

**50,000+**  
PROJECTS BUILT

**2000+**  
CLIENT PLATFORMS  
MANAGED

**\$2 MILLION TO \$6 BILLION**  
PROJECT  
VALUE RANGE

HOURS  
SAVED: **528,000+**

**24-HOUR  
AVERAGE** QC'D PLATFORM  
UPLOAD TURNAROUND

For a **FREE CONSULTATION** contact us at  
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# 4 Areas to Leverage the Power of Digital Construction Plans

With 21 Tips to Increase Document Efficiency



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# Introduction

*As the construction industry was left reeling in the wake of the Great Recession of 2008, contractors, developers, and architects scrambled to cut costs by reducing staff and improving the efficiency of their processes. As Gandhi said "Adversity is the mother of progress," and so tech companies seized the opportunity to penetrate the construction industry, offering tools that would decrease cost by digitizing the current set in order to minimize the need for print. This greatly reduced turnaround times by increasing collaboration mediums.*



*This guide outlines digital standards that enable you to streamline data to better leverage tech to reduce cost, time, and risk on construction projects.*

**Background**  
While the construction industry was quick to adopt digital solutions to keep its head above water, it did little to alter existing processes to accommodate the advantages that technology brought to the table. Efficiencies turned into shortcuts, and "easier to manage data" turned into "easier to create more data" but with less relevant information.

**Today's Challenge**  
Now as we surpass the 10-year anniversary of the storm, it's very common to hear that "things were easier in the paper days." It seems that through efforts to increase productivity, the industry managed to increase complexity, forming webs of disparate data without truly leveraging some of the greatest efficiencies that technology has to offer.


**Digital Standards**  
In this guide we will look at some of the most effective digital enhancements, and how they are being underleveraged by falling victim to old design habits. These digital enhancements can save dozens, hundreds, or even thousands of hours. By establishing some basic document standards for the digital age, you can greatly scale up document and quality-control automation, thus significantly reducing risk, cost, and time for your job.



# 1 Sheet Naming & Numbering

## Numbering 101

First thing's first. When creating your sheet numbers, make sure to consider the way construction platforms store and organize information. The naming convention you create can affect how easy or difficult it is to update and locate information for years to come. When numbering sheets assume the worst-case scenario—at some point all sheets might end up in one folder—with that in mind carefully consider the impacts of your naming conventions.

 **Quick Tip:**  
*How you name your sheets can affect how easily you can locate information for years to come.*

### 6 Tips to Name & Number By

01

Use leading 0s to retain numbering integrity. Keep in mind that the sheet number will likely be incorporated into the file name exactly as provided.

02

Plan your sheet numbers to sort effectively and intuitively by alphanumeric standards.

03

Do not use the same sheet number for different scopes. Having C1.0 in both on-site and off-site civil will inevitably lead to sheets being updated for the wrong scope. Instead use a prefix or a suffix to differentiate scopes.

04

Don't change the file or sheet name and numbering during the project as this will break existing hyperlinks in many repositories and make them unusable.

06

Minimize adding redundant information (like the discipline or phase) to reduce the overall path length of the file. A long file name, when combined with the rest of a path, can make it difficult to move files if they exceed 255 characters.

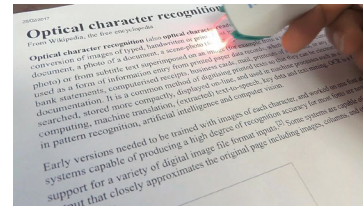
05

To avoid automatically overwriting the wrong sheet, do not reuse deleted sheet numbers.

# 2 Optical Character Recognition (OCR)

## Use the OCR Force

Let's look at the most well-known digital efficiency: Optical Character Recognition. OCR allows for many force-multiplying functions such as search, auto-renaming, hyperlinking, and other invaluable efficiencies for document control.



### The ABC's of OCR

**A** Text

Make sure to use horizontal text whenever possible, or vertical text if necessary. Diagonal text is not recommended as it's often missed by OCR. Also, take care to select an OCR-friendly font (avoid condensed fonts).

**B** Title Block

Title block information should be located horizontally in the bottom-right corner in the identical location on every sheet, typically in the following order:

- Sheet Description
- Revision #
- Sheet Number


**C** Callouts

- Callouts must reside within standard callout circles.
- Callout text must be legible.
- Callout text must be contained within the circle.
- There must not be any outside information, such as a gridline, infringing on the circle.
- Avoid relocating callouts to minimize impact on existing hyperlinks.

# 3 Overlays

## Avoiding Overlay Editing

Technology has taken us a long way from physically overlaying sheets on a light table and painstakingly marking every change by hand, one sheet at a time. Digital overlays can help you perform this task in two hours, instead of two weeks. However many efficiencies are lost by making unnecessary changes to revised sheets. Setting and following standards ensure that you maximize the benefits of digital overlays.

 **Quick Tip:**  
*These digital overlay standards can save hours, or even days.*

### 5 Ways to Organize Information for Overlays

01

Every version of the sheet must be plotted with the exact same margins.

02

Sheet scale must remain the same.

03

If possible keep any index, legend, sheet/general notes at the same location on the sheet. Add new notes to the end of the note list so as not to offset the notes text from the previous version.



04

Detail locations on detail sheets must be planned ahead and not relocated to accommodate additional details. If new details do not fit, a new detail sheet should be created.

05

Sheet content must not be moved unless unavoidable.

# 4 Scanned Document Workaround

## Side-Stepping Scanned Docs

It's important to note that scanned documents, while not directly affecting architectural drawing standards, severely handicap OCR, overlay, and other automation capabilities. For this reason, it's critical to avoid using scanned files in your digital current set whenever possible. If you're stuck working with a scanned copy, like a stamped permit, and have trouble batch hyperlinking your files in a tool like Bluebeam, follow this workaround.



### The Scan-Doc 3-Step

#### Step One


Upload the digital version of the set first.

#### Step Two

Perform the batch hyperlinking function.

#### Step Three

Then swap out the backgrounds with the stamped set while maintaining the hyperlinks.

 **Quick Tip:** Avoid using scanned files in your digital current set whenever possible.

