Connecting the Dots between Office and Field Using BIM 360 Docs

Deepak Maini
National Technical Manager, Cadgroup Australia

Aaron Coats
Associate Director | National BIM Manager
Welcome to AU 2020
The Digital Experience
Aaron’s Introduction

- Associate Director | National BIM Manager at Bates Smart Architects
- More than 20 Years of experience in the industry
- Highly regarded in the Architectural industry in Australia
- Runs the Design Technology Team that supports 300 staff
- Primary role: BIM Management, Project setup, Software Implementation, Training, Induction, instrumental in project delivery
- Loves his motorbikes
Deepak’s Introduction

• National Technical Manager – Named Accounts, Cadgroup Australia
• Qualified Mechanical Engineer
• Around 21 years of experience in the industry
• Autodesk Expert Elite, Autodesk BIM 360 Certified Consultant, Bluebeam Certified Consultant and Instructor
• Awarded the “Best Autodesk University Speaker” two years in a row at AU2018 and AU2017 in Las Vegas
• Voted “Top Speaker” at the Bluebeam XCON 2019 in Washington DC
• Author of the Up and Running with Autodesk Navisworks, Autodesk Navisworks for BIM/VDC Managers, Up and Running with Autodesk Advance Steel and Up and Running with Bluebeam Revu series of books
  ▪ Guest lecturer at the University of Technology Sydney (UTS) and University of New South Wales (UNSW), University of Salford UK, Virginia Tech University
My Aim: Have Lots of Fun as we Learn
Acknowledgements

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Learning Objectives

• Learn about how the latest construction documents are made available to the field consultants with BIM 360 Docs.
• Learn how you can use a tablet device to view the latest construction documents in the field.
• Learn how to access the construction documents in the offline mode on a tablet device.
• Learn how to review construction documents in the field and generate issues and RFIs.
A Quick Word about the Handout
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Cardgroup Australia
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Bates Smart Architects

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Description
The construction industry worldwide loses hundreds of millions of dollars because of the rework caused by the lack of the latest information and construction documents available at the right time to the field executives. However, this changed with BIM 360 Docs software, which enables the flow of the latest accurate information from the office to the field executives without any delay. With BIM 360 Docs, the field executives can even view the documents offline. This class explains in detail how this process is performed and maintained throughout the construction process. We will be showcasing a project in Australia where BIM 360 Docs is helping users provide the latest construction documents to the field executives.

Deepak Maini
Deepak Maini (Sydney, Australia) is a qualified Mechanical Engineer with more than 21 years of experience working in the design industry. He is an Autodesk Certified Instructor and a Certified BIM 360 Consultant and has authored the "Up and Running with Autodesk Navisworks", "Autodesk Navisworks for BIM/MEP Managers", "Up and Running with Autodesk Advance Steel", and "Up and Running with Bluebeam Revu" series of books. He is currently working as the National Technical Manager - Named Accounts with Cardgroup Australia, an Autodesk Platinum Partner.

Deepak is a regular speaker at various conferences around the world and was awarded the "Top Autodesk University Speaker" two years in a row in 2016 and 2017 in the Instructional Demo category. He was also voted as the "Top Speaker" at the Bluebeam XCON 2019 conference in Washington DC. Additionally, Deepak is also one of the "Top Rated Speakers" at various BILT conferences in ANZ and Asia.

Outside his full-time work, Deepak is a Guest Lecturer at the University of Technology Sydney (UTS) and the University of New South Wales (UNSW), two of the leading universities in Australia.
Cool Way to Bulk Add Members to the Project
| A   | B                  | C                  | D                  | E                  | F                  | G                  | H                  | I                  | J                  | K                  | L                  | M                  | N                  | O                  | P                  | Q                  | R                  | S                  | T                  | U                  | V                  | W                  | X                  | Y                  | Z                  | Aa                 |
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Let’s Start with Some Numbers in the Construction Industry
The Problem with Construction Software Today

UNCLEAR COMMUNICATION LINES BETWEEN TEAMS

Rework costs the construction industry over $15 Billion a year

Construction Institute
$15 Billion a year

55% Claims are due to “inaccurate field data”
62% of construction professionals transfer field data manually or via spreadsheets.

30% of data created during design and construction is lost by project closeout.
25% of construction companies use 5 or more different software application
47% of construction professionals do not use any mobile app for daily reporting.
So what is the Solution?
A single, cloud-based repository for all project documentation, making possible real-time communication and document exchange between office and field teams.
THE BIM 360 DOCS

- Document Control
- Mobile Access
- Offline Mode
- Version Control
- Compare Documents
- 2D & 3D Support
- Issue Management
- Markup Drawings
- Embedded Data

AUTODESK
BIM 360 DOCS
CASE STUDY PROJECT FOR THIS PRESENTATION

1 DENISON STREET, NORTH SYDNEY

bateessmart™
Challenges We Faced In These Types Of Projects
Challenges We Faced In These Projects

➢ Bates Smart need to work closer with contractors to fabricate

➢ More projects moved to BIM360 + BIM360 Coordinate

➢ May not have the applications that other consultants use, and vice-versa

➢ Bates Smart use a number of applications
Challenges We Faced In These Projects

(Increased emails, Teams meetings, screen sharing)
Challenges We Faced In These Projects

- Huge amount of time wasted in model uploads and downloads
- Bates Smart prefer to maximize the available design time
- Extended opening times on some 3rd Party Software
Using BIM 360 Docs To Solve Issues
Using BIM 360 Docs To Solve Issues

- Internal documentation checking
- Access to 3D information
- Internal Review and Markup
- BIM 360 Document Management can read multiple native file formats in the browser
- Internally Managed
- Access to the models on iPad in the offline mode
Not Discussing Setting Up BIM
360 Projects

Covered in Detail in the Handout and also discussed in the Docs class in 2018
A Couple of Admin Activities
Bulk Adding Members to the Project

The Smart Way
Provide Folder Permissions Based on Roles

Think about the future
Difference Between Plans and Project Files Area

PLANS AREA

• Used to manage the latest set of construction plans
• Multi-sheet PDF file will have each sheet extracted and displayed for review and markup
• All published 2D sheets and 3D views from the Revit file are automatically extracted and made available for review and markup
• Run Optical Character Recognition (OCR) on the PDF files to extract title block information

PROJECT FILES AREA

• Mainly works for BIM 360 Design Projects for Revit cloud worksharing
• Used to upload federated project models, such as Navisworks NWD files
• You can upload project specs, spreadsheets, photos, and so on
• Supports viewing of over 50 file formats, such as 3ds max, Sketchup, Infraworks, Word, Excel, and so on
• Sheets are not extracted from Revit or PDF files
My Aim: Have Lots of Fun as we Learn
Live Demonstration

*BIM 360 Docs Workflows*
Live Demo using iPad

➢ Project Intro
➢ iPad offline Mode
➢ Document Review (2D and 3D)
➢ iPad Measurement
➢ iPad Sectioning Models
➢ Issue Creation and Management (iPad and PC)
➢ RFI Creation and Management (iPad and PC)
➢ Compare Documents (PC)
Three Key Takeaways

➢ Use the smart way to add members to the project.

➢ Create custom roles and define permissions based on those roles

➢ Revit and PDF files uploaded in the Plans area will automatically have sheets extracted. For PDF file, you will have to run OCR on title block