

Tools Not Toys: Estimating/Scheduling in Virtual Reality with BIM Databases and Stingray

Kelsey Stein

VDC Manager, Skanska

Dave Tyner

Enterprise Solutions Lead, Immersive Technology, Autodesk

Join the conversation #AU2017





Kelsey Stein

VDC Manager, Skanska



Dave Tyner

Enterprise Solutions Lead, Immersive Technology, Autodesk

Key Learning Objectives

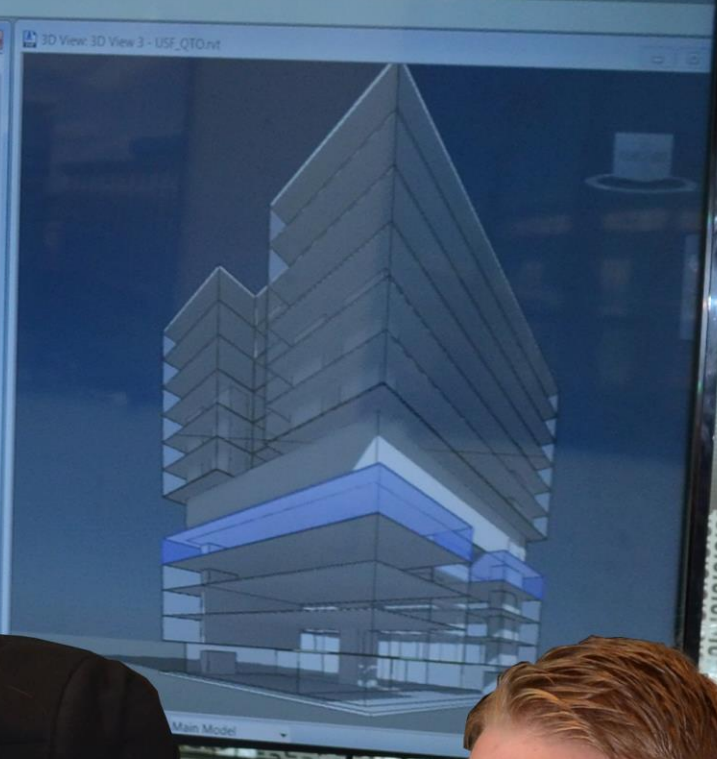
- Link an external BIM data source to Stingray
 - Visualizing schedules in virtual reality
 - Visualizing estimating in virtual reality
 - Export information from stingray to an external data source



1) Schedule: Skanska Wall Schedule Pricing - USF_QTO.rvt

<Skanska Wall Schedule Pricing>

A	B	C	D	E	F	G	H	I
Assembly Code	Family and Type	Finish	Base Constraint	Count	Volume - CF	Area - Single Sided - SF	Construction Cost Per SF	Total Cost
02010	Basic Wall - Generic - 8" Core	Core-shaft	Level 1	26	16,154			
02010	Basic Wall - Generic - 8" Glazing	Exterior	Level 1	4	5,800	32,309	\$100.00	\$3,230,850.00
02010	Basic Wall - Generic - 8" Glazing	Interior	Level 1	8	5,047	13,650	\$85.00	\$1,158,900.00
				38	29,002	12,095	\$50.00	\$654,743.75
								\$4,997,388.75
02010	Basic Wall - Generic - 8" Core	Core-shaft	Level 2	8	992			
02010	Basic Wall - Generic - 8" Glazing	Exterior	Level 2	12	6,840	1,984	\$100.00	\$198,400.00
02010	Basic Wall - Generic - 8" Glazing	Interior	Level 2	12	6,840	13,680	\$85.00	\$1,162,800.00
02010	Basic Wall - Generic - 8" Glazing	Interior	Level 2	12	6,840	9,377		
02010	Basic Wall - Generic - 8" Glazing	Interior	Level 2	1	1,305	16,756		\$1,199,585.00
				33	17,814	2,415	\$5.00	\$21,687.75
								\$2,542,472.75
02010	Basic Wall - Generic - 8" Core	Core-shaft	Level 3	12	1,489			
02010	Basic Wall - Generic - 8" Glazing	Exterior	Level 3	12	6,840	2,937	\$100.00	\$293,726.00
02010	Basic Wall - Generic - 8" Glazing	Interior	Level 3	3	928	13,680	\$85.00	\$1,162,800.00
				27	9,235	1,852	\$85.00	\$157,441.25
								\$1,613,968.25
02010	Basic Wall - Generic - 8" Core	Core-shaft	Level 4	12	1,489			
02010	Basic Wall - Generic - 8" Glazing	Exterior	Level 4	12	6,840	2,937	\$100.00	\$293,726.00
02010	Basic Wall - Generic - 8" Glazing	Interior	Level 4	4	2,791	13,680	\$85.00	\$1,162,800.00
				28	11,086	5,585		\$433,272.00
								\$1,889,806.00
02010	Basic Wall - Generic - 8" Core	Core-shaft	Level 5	8	992			
02010	Basic Wall - Generic - 8" Glazing	Exterior	Level 5	12	6,840	1,984	\$100.00	\$198,400.00
02010	Basic Wall - Generic - 8" Glazing	Interior	Level 5	5	3,379	13,680		\$1,162,800.00
				26	11,211	6,756		\$819,856.75
								\$1,882,056.75
02010	Basic Wall - Generic - 8" Core	Core-shaft	Level 6	4	8,500			
02010	Basic Wall - Generic - 8" Core	Core-shaft	Level 6	8			\$50.00	\$400,000.00
							\$100.00	\$156,400.00
								\$1,048,400.00
02010	Basic Wall - Generic - 8" Core	Core-shaft	Level 7	40				
02010	Basic Wall - Generic - 8" Glazing	Exterior	Level 7	12				\$2,630,400.00
02010	Basic Wall - Generic - 8" Glazing	Interior	Level 7	2				\$1,164,160.00
								\$43,687.00
								\$3,837,247.00
02010	Basic Wall - Generic - 8" Core	Core-shaft	Level 8					
02010	Basic Wall - Generic - 8" Glazing	Exterior	Level 8					
02010	Basic Wall - Generic - 8" Glazing	Interior	Level 8					
								\$156,400.00
02010	Basic Wall - Generic - 8" Core	Core-shaft	Level 9					





NAME : RECTANGULAR-COLUMN
DATE : 11/17/2017
TIME : 3/27/2018
3

Current Date: 10/25/2017

STRUCTURAL_COLUMNS

1



Next Steps

- Preconstruction
 - Safety
 - Site Logistics
 - Scheduling
 - Point Cloud Integration
 - BIM 360 Products

“Tools Not Toys”
- Jeff Courtney

Benefits

- Enhanced Client Experience
 - Visualize the Project
 - Communicate the Estimate, Schedule, etc.
 - Real-time Decision-Making
- Greater Collaboration with Designers
 - Continuous Estimating
 - Clash Detection / Coordination
 - Constructability

Won 5 out of 6 Projects!

Q & A

A Special Thanks



Jeff Courtney



Jim Cowdery



Dave Tyner



Jean Laliberte

