



Drive Innovation
with Technology & Human Touch



JANUAR ARIEF

Architect & Interior Designer

ACADEMIC & WORKING EXPERIENCE

- Application Engineer at **PT Indonesia Applicad**
- BIM Coordinator Internship at **PDW**
- Guest Lecturer at **Podomoro University**
- Certified Graphisoft BIM Manager
- Architect at **PT Karya Insan Sehati**
- Interior Designer at **PT Gresth Living**



Drive Innovation
with Technology & Human Touch

JOIN THE
CREATIVE
FLOW

ARCHICAD

1994	1997	2000	2006	2007	NOW
PLANT	Mechanical	Training	Rapid Prototype	Architecture Engineering & Construction	GLOBAL
		ETC Service		GRAPHISOFT ARCHICAD	

1996
Highest Revenue growth award from AutoPLANT

1997
SolidWorks reseller in Thailand

2000
Established AppliCAD's Training Center

2006
Started Rapid Prototype Solution

2008
ArchiCAD reseller in Thailand

NOW
Go into Southeast Asia Market

1994
Appointed by EDA-AutoPLANT to be Distributor

2007
Started Architecture Engineering & Construction Market

Thailand
 Indonesia

— AppliCAD —

AEC SOFTWARE

JOIN THE
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ARCHICAD

- DESIGN



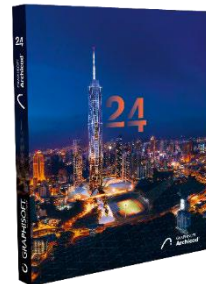
RhinoCeros®
modeling tools for designers



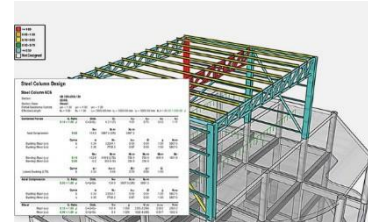
- CAD
- BIM
- CHECKER



GstarCAD



GRAPHISOFT
Archicad®



PROTA
SOFTWARE

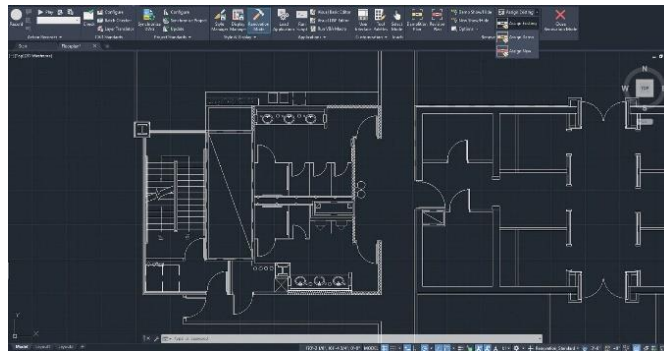


SOLIBRI
A NEMETSCHKE COMPANY

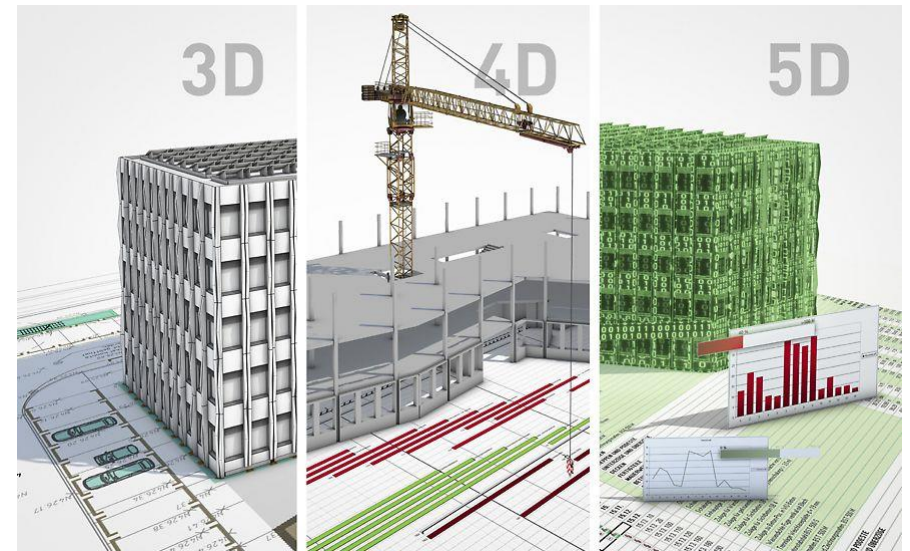
THE HISTORY



DRAWING TABLE & PAPER



CAD (COMPUTER AIDED DESIGN)



BIM



WHAT IS BIM ?

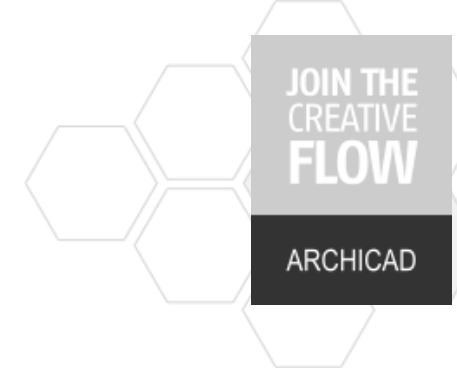
“BUILDING INFORMATION MODELLING”



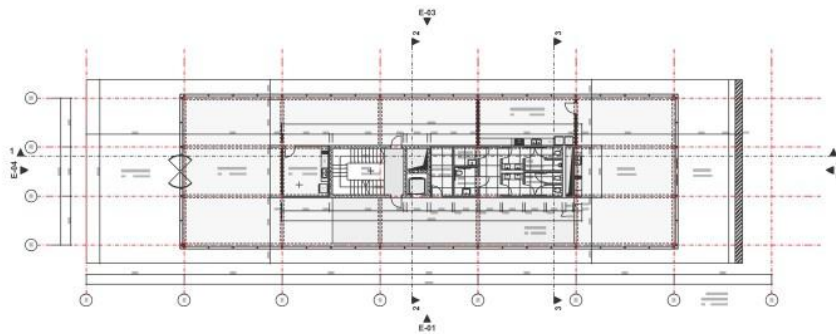
It can be explained in many different ways. It could be a:

- Process setup that involves the full project team in a way to optimize their actions
- 3D Model that contains information that can be extracted in different formats
- Collaborative process between different disciplines that exchange information on a 3D Model Based environment

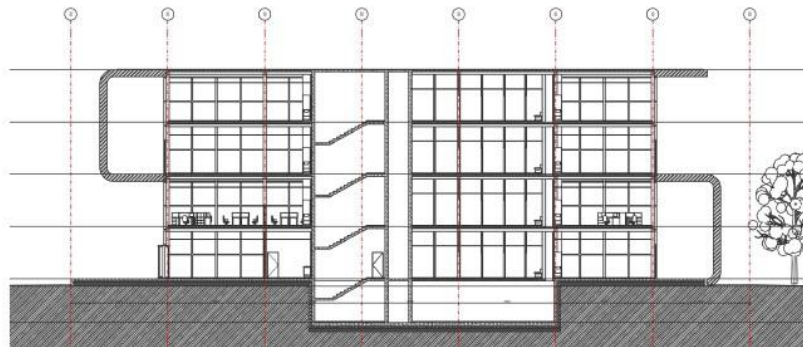
BIM WITH 2D & 3D INTEGRATION



Four-story Mixed-use Office Building

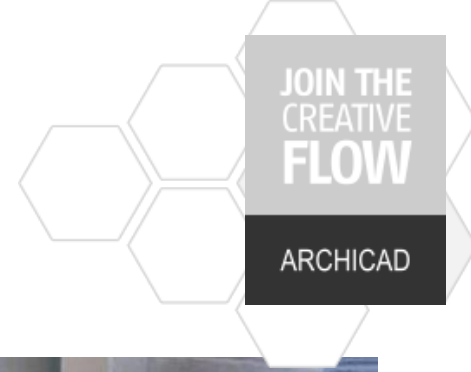


Library Part Name	Height	Width	Thickness	To Room ...	W x H Size	Floor (Story)
W Direct Glazed 12	1.500	0.900	0.05		900x1500	0
W Direct Glazed 12	1.500	0.900	0.05		900x1500	0
W Direct Glazed 12	1.500	0.900	0.05		900x1500	0
W Direct Glazed 12	1.500	0.900	0.05		900x1500	0
W Ribbon 12	1.500	3.000	0.05		3000x1500	0
W Ribbon 12	1.500	3.000	0.05		3000x1500	0
W Ribbon 12	1.500	3.000	0.05		3000x1500	0
W Ribbon 12	1.500	3.000	0.05		3000x1500	0
W1 Casement 12	1.500	0.900	0.05		900x1500	0
W1 Casement 12	1.500	0.900	0.05		900x1500	0
W1 Casement HDiv 12	1.500	0.900	0.05		900x1500	0
W1 Casement HDiv 12	1.500	0.900	0.05		900x1500	0
W1 Casement HDiv 12	1.500	0.900	0.05		900x1500	0
W1 Casement HDiv 12	1.500	0.900	0.05		900x1500	0
W1 Casement HDiv 12	1.500	0.900	0.05		900x1500	0
W1 Casement HDiv 12	1.500	0.900	0.05		900x1500	0
W2 Horizontal Slide 12	1.500	1.500	0.05		1500x1500	0
W2 Horizontal Slide 12	1.500	1.500	0.05		1500x1500	0
W2 Horizontal Slide 12	1.500	1.500	0.05		1500x1500	0

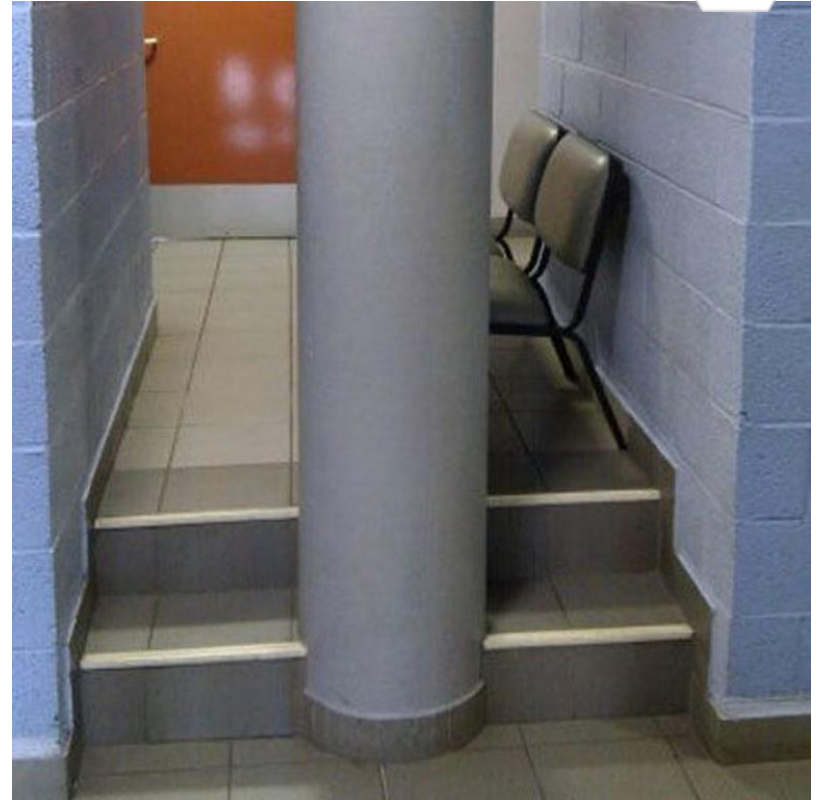


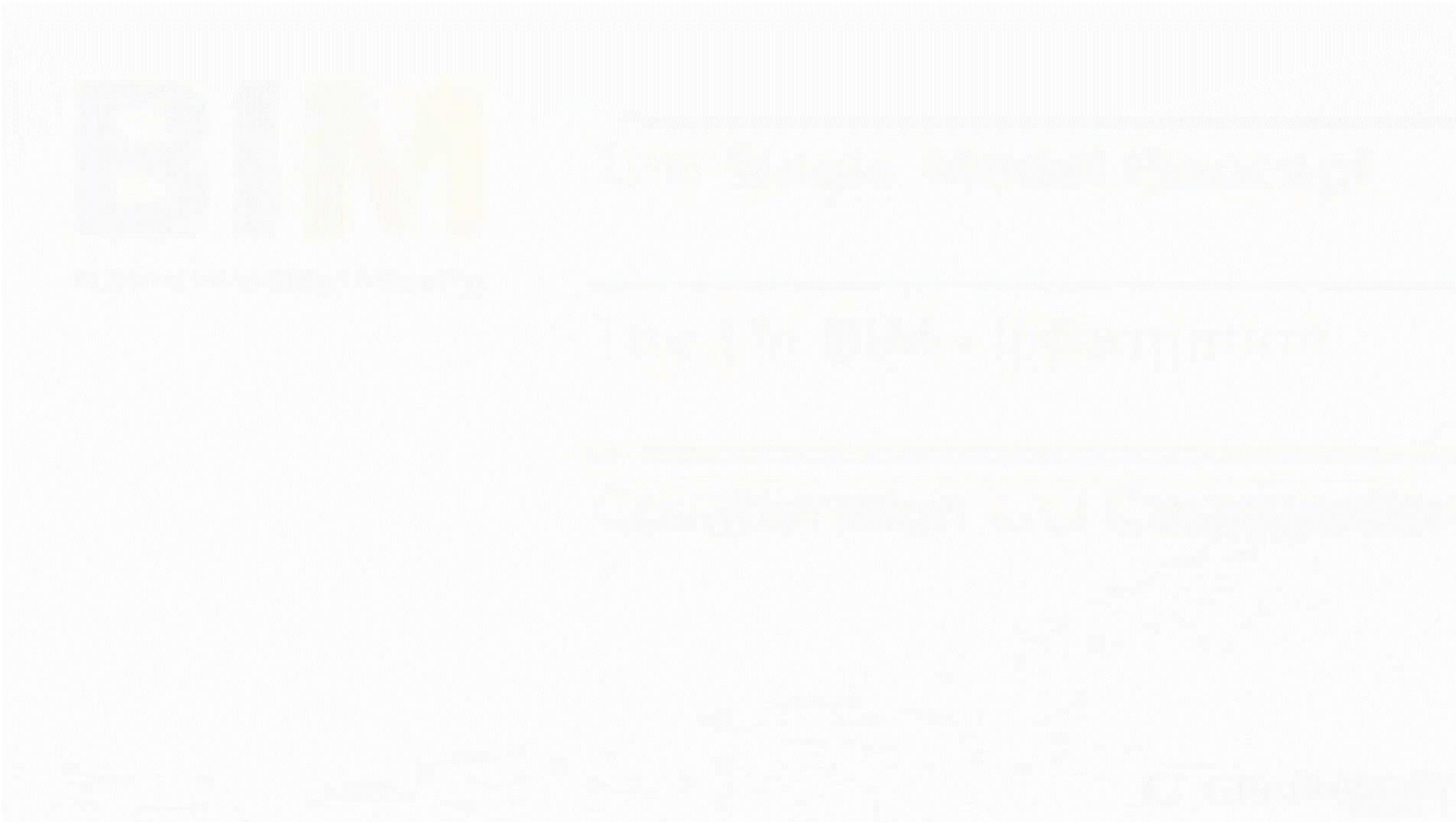
— AppliCAD —

CONSTRUCTION ERROR



— AppliCAD —





— AppliCAD —



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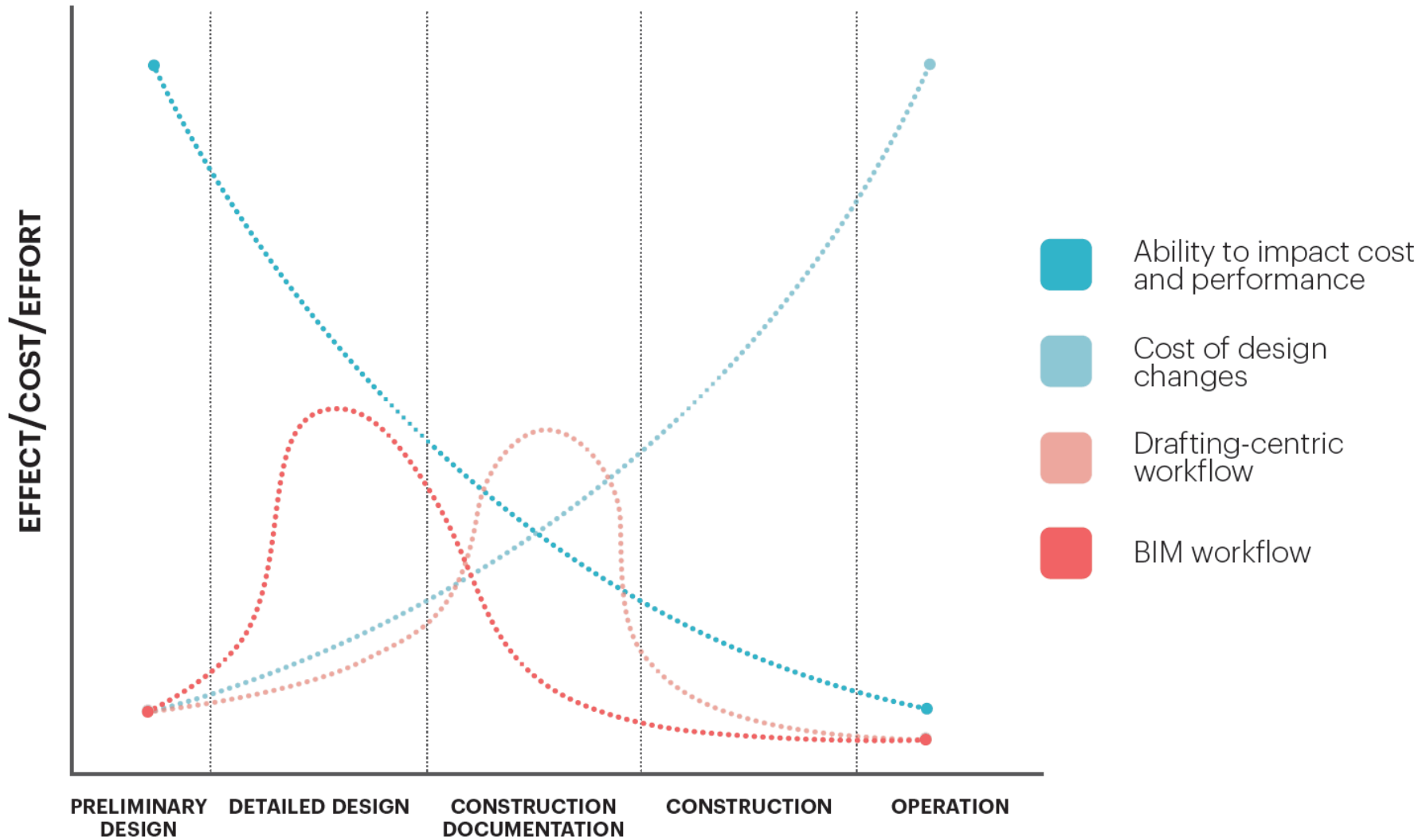
ARCHICAD



WHY BIM



— AppliCAD —



For a civil engineer, there's no such thing
as a "little mistake."



— AppliCAD —

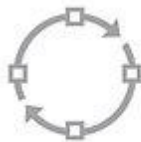
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PROCESS

Standards, Processes, Procedures
Lean Design Management
Integrated project delivery
Information Management



PEOPLE

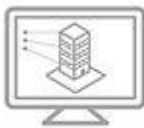
Leadership
Collaboration
Owners engagement
Skills & Responsibilities



COMPONENTS OF BIM

TECHNOLOGY

BIM Modeling
Simulation
Interoperability
Integration



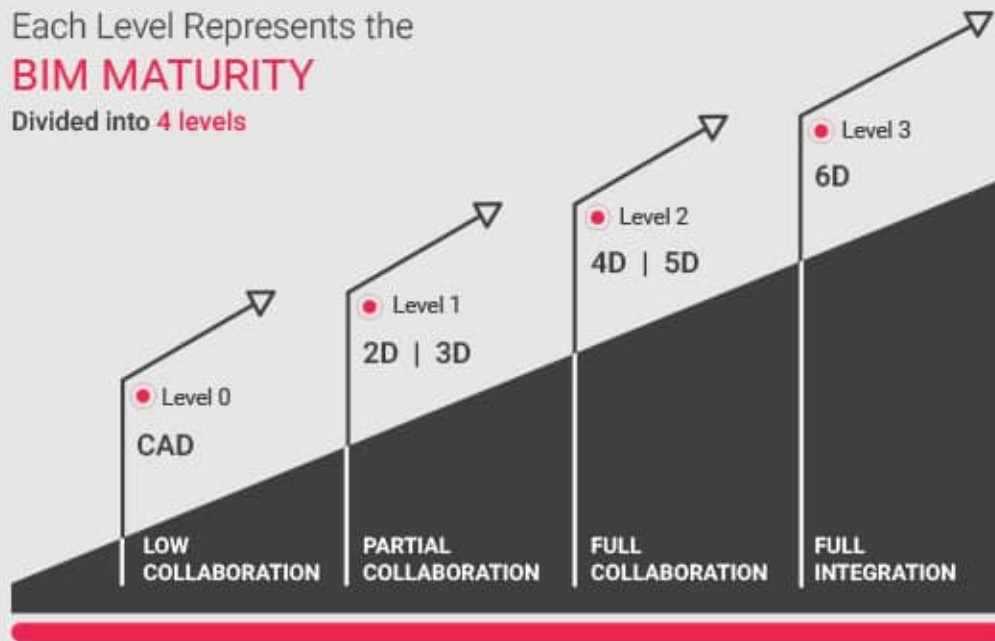
POLICY

Standards, project guidelines
Legal & contractual
Procurement
Delivery plan



BIM Levels Explained

Each Level Represents the **BIM MATURITY**
Divided into 4 levels



GOVERNMENT REGULATION

Kewajiban penggunaan BIM untuk bangunan gedung negara dengan luas 2000m² dan diatas 2 lantai

**kedepannya tidak hanya untuk bangunan negara saja*

PERMEN PUPR Nomor 22/PRT/M/2018



MENTERI PEKERJAAN UMUM DAN PERUMAHAN RAKYAT
REPUBLIK INDONESIA

PERATURAN MENTERI PEKERJAAN UMUM DAN PERUMAHAN RAKYAT
REPUBLIK INDONESIA
NOMOR 22/PRT/M/2018
TENTANG
PEMBANGUNAN BANGUNAN GEDUNG NEGARA

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI PEKERJAAN UMUM DAN PERUMAHAN RAKYAT
REPUBLIK INDONESIA,



PRESIDEN
REPUBLIK INDONESIA

PP No. 16 Tahun 2021

- 2) padat teknologi, dengan kriteria pekerjaan:
 - a) bangunan bertingkat menengah dan tinggi;
 - b) teknologi tidak sederhana dan risiko tinggi;
 - c) bahan bangunan non standar;
 - d) memerlukan perlatan mekanik dan elektrik;
 - e) wajib menggunakan BIM paling sedikit sampai dimensi kelima; dan
 - f) dilakukan oleh penyedia jasa paling sedikit klasifikasi menengah dengan melibatkan quantity surveyor dan manajemen konstruksi.
- 3) padat modal, dengan kriteria pekerjaan:
 - a) bangunan pencakar langit dan super tinggi.
 - b) teknologi dan risiko tinggi;
 - c) bahan bangunan khusus;
 - d) memerlukan peralatan khusus dan canggih;
 - e) wajib menggunakan BIM sampai dimensi kedelapan; dan
 - f) dilakukan oleh penyedia jasa klasifikasi besar dengan melibatkan quantity surveyor, manajemen proyek dan manajemen konstruksi



<http://bim.pu.go.id/>

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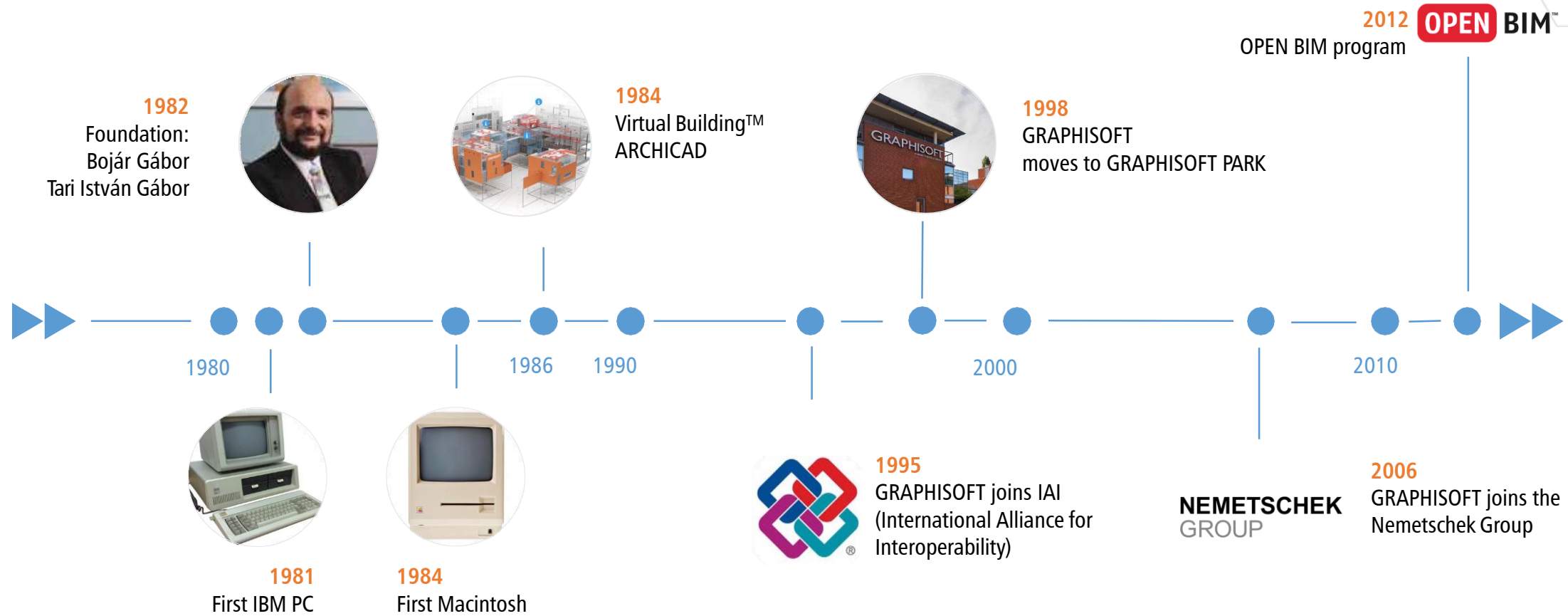


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HISTORY TIMELINE



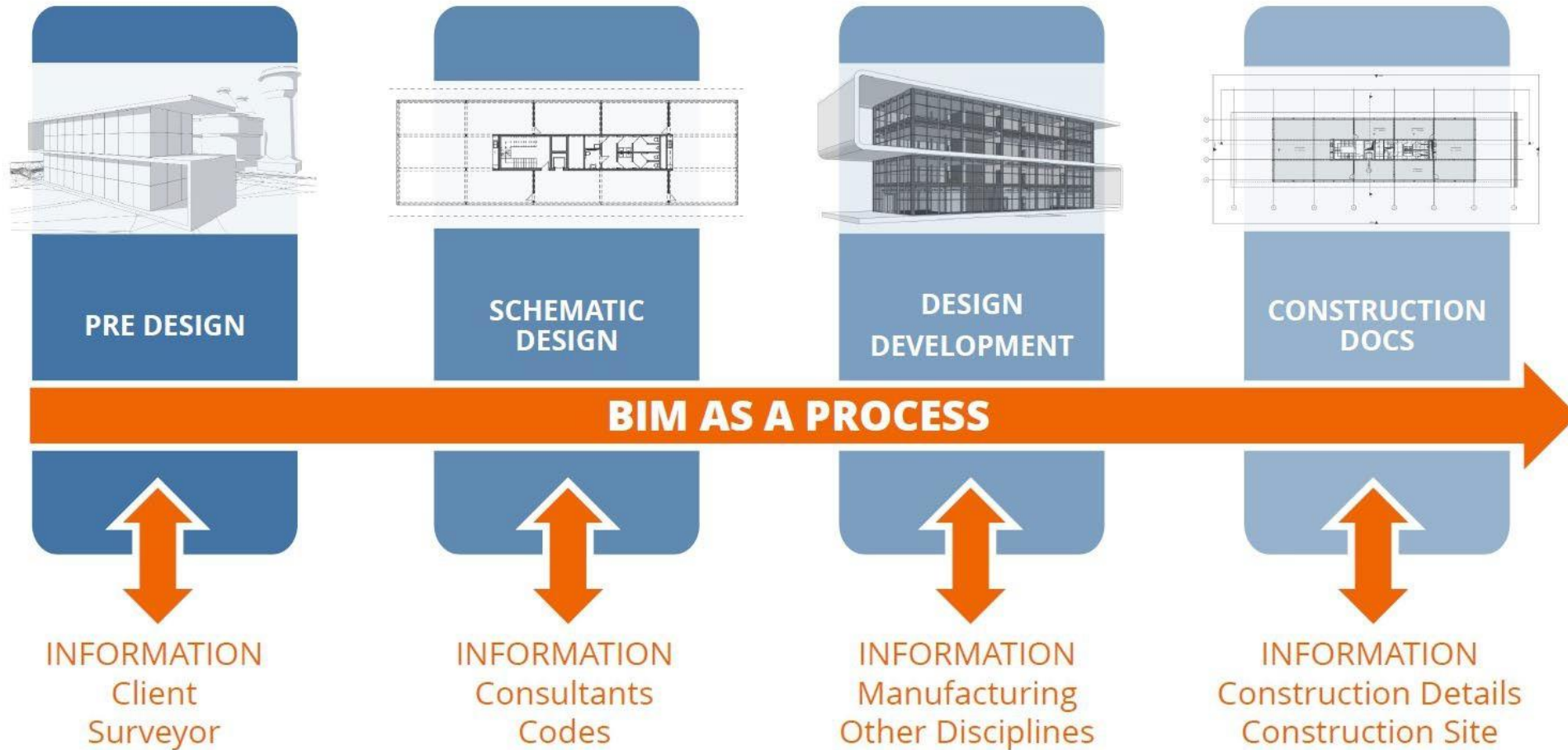
— AppliCAD —



INFORMATION INSIDE BIM



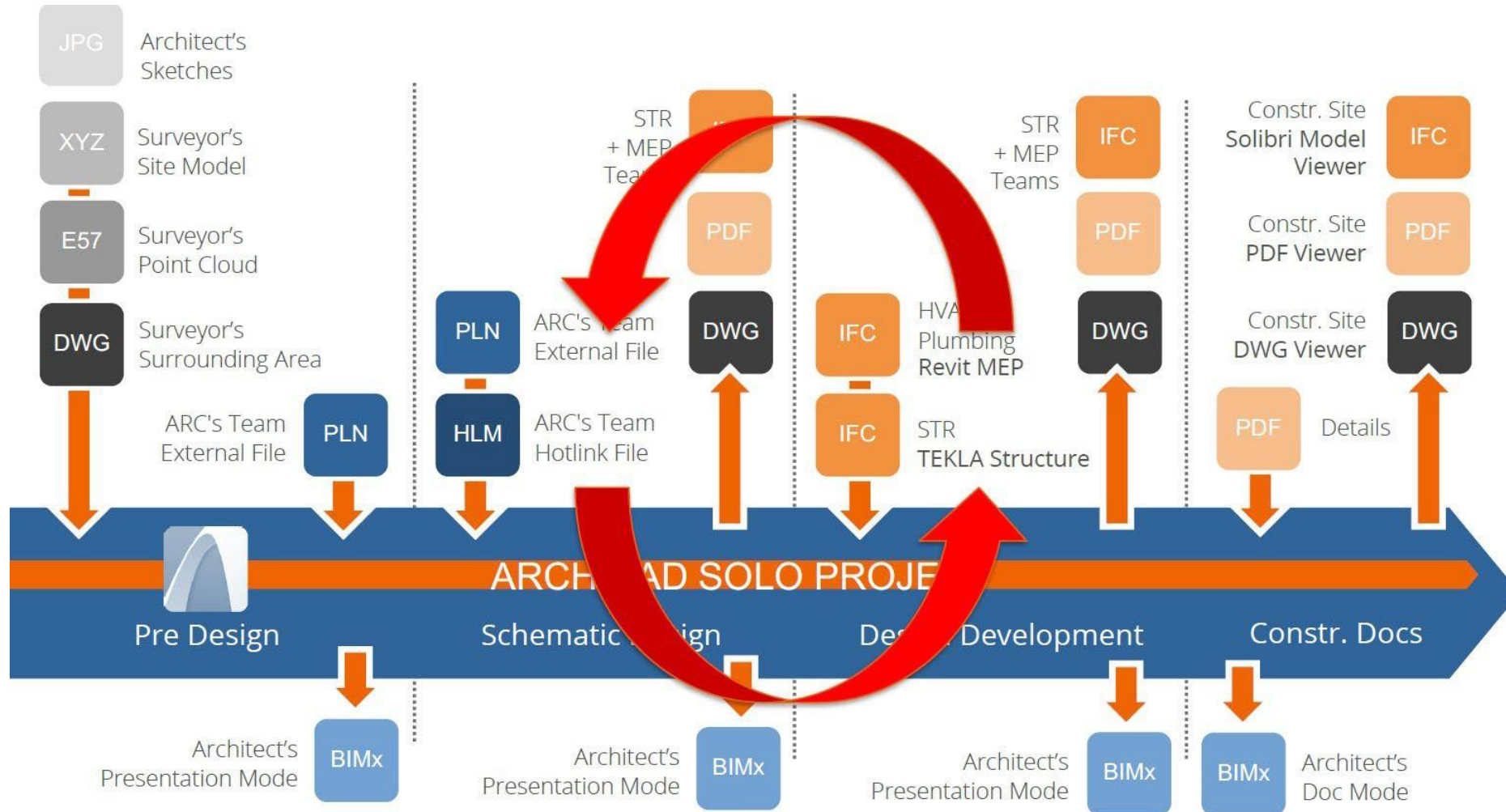
— AppliCAD —



PROJECT LIFECYCLE



— AppliCAD —





IFC

Industry Foundation Classes



BCF

BIM Collaboration Format



COBie

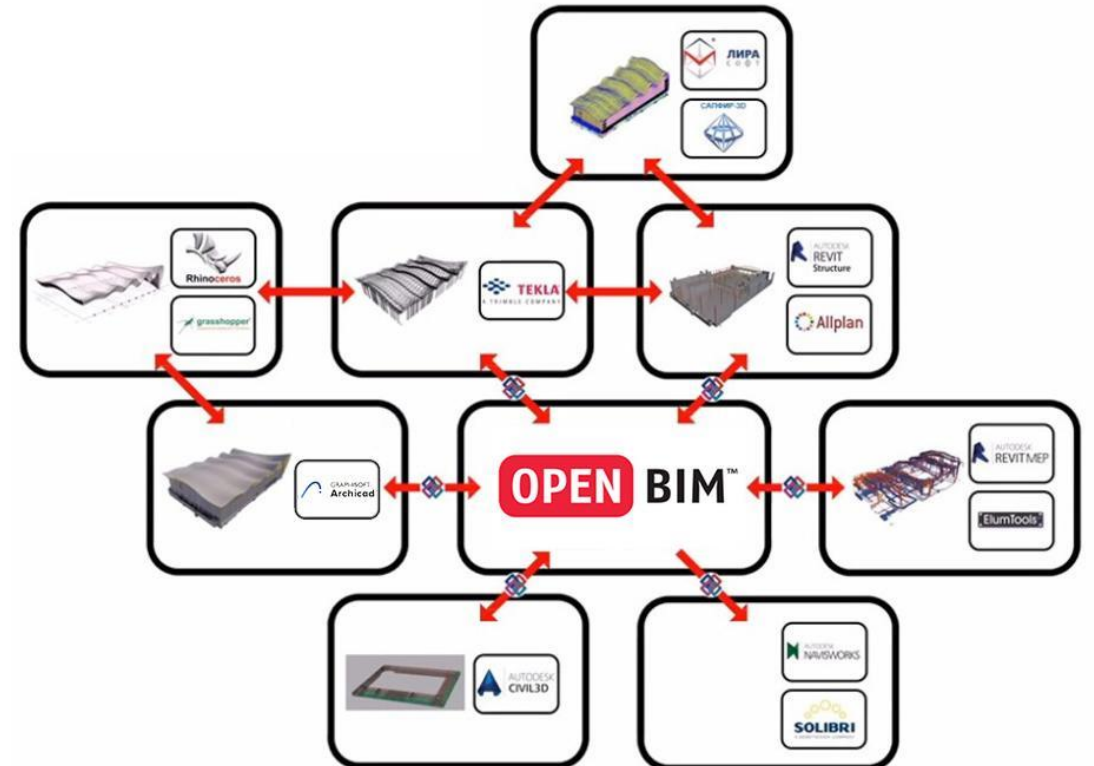
Construction Operation
Building Information
Exchange

Interoperability is key to the digital transformation in the built asset industry
Open and neutral standards should be developed to facilitate interoperability
Reliable data exchanges depend on independent quality benchmarks
Collaboration workflows are enhanced by open and agile data formats
Flexibility of choice of technology creates more value to all stakeholders
Sustainability is safeguarded by long-term interoperable data standards

WE ARE OPEN

OPEN BIM is a modern approach to collaboration that welcomes all software vendors, AEC practices (designers, engineers and builders) as well as building owners.

We are open. Open to working with the best partners for the job regardless of their software choices. Open to future-proof solutions, transparency, quality assurance and accessible data.



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— AppliCAD —



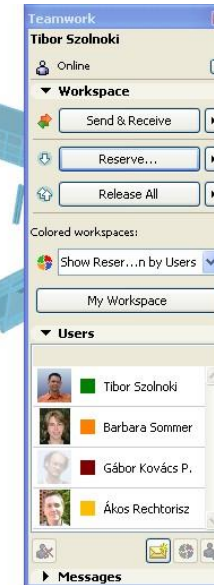
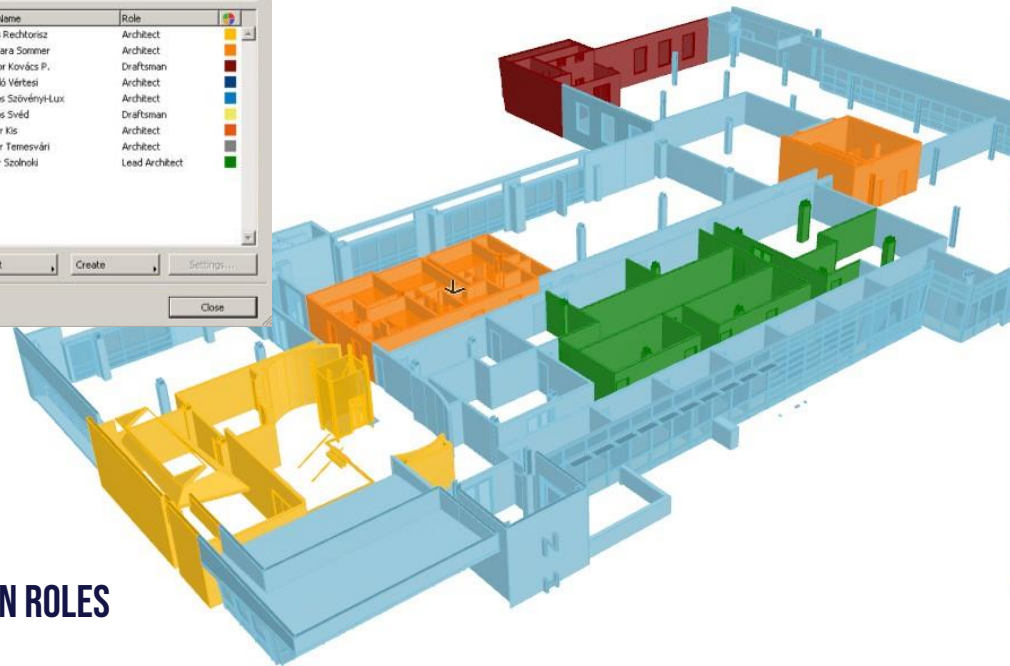
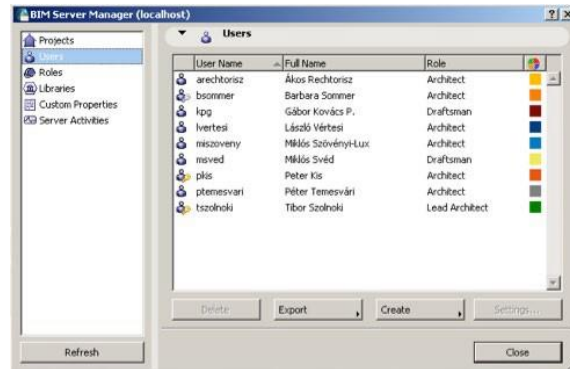
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TEAMWORK

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BIMcloud®



- WORK ON A PROJECT TOGETHER BASED ON ROLES
- REAL TIME TEAMWORK
- CENTRALLY DEFINED USER COLOUR AND BUILT IN MESSAGING PLATFORM



GRAPHISOFT Archicad® FEATURES

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GRAPHISOFT MEP MODELER



— AppliCAD —



GRAPHISOFT Archicad® FEATURES



BIMx - Virtual Building for presentation

The new updated version is available at:



BIMx

Real-time 3D cutaway
Better performance
Parallel projection



Explore

Realtime walk, fly through model

Communicate

Clear design, distance & space

Share

Without program installed



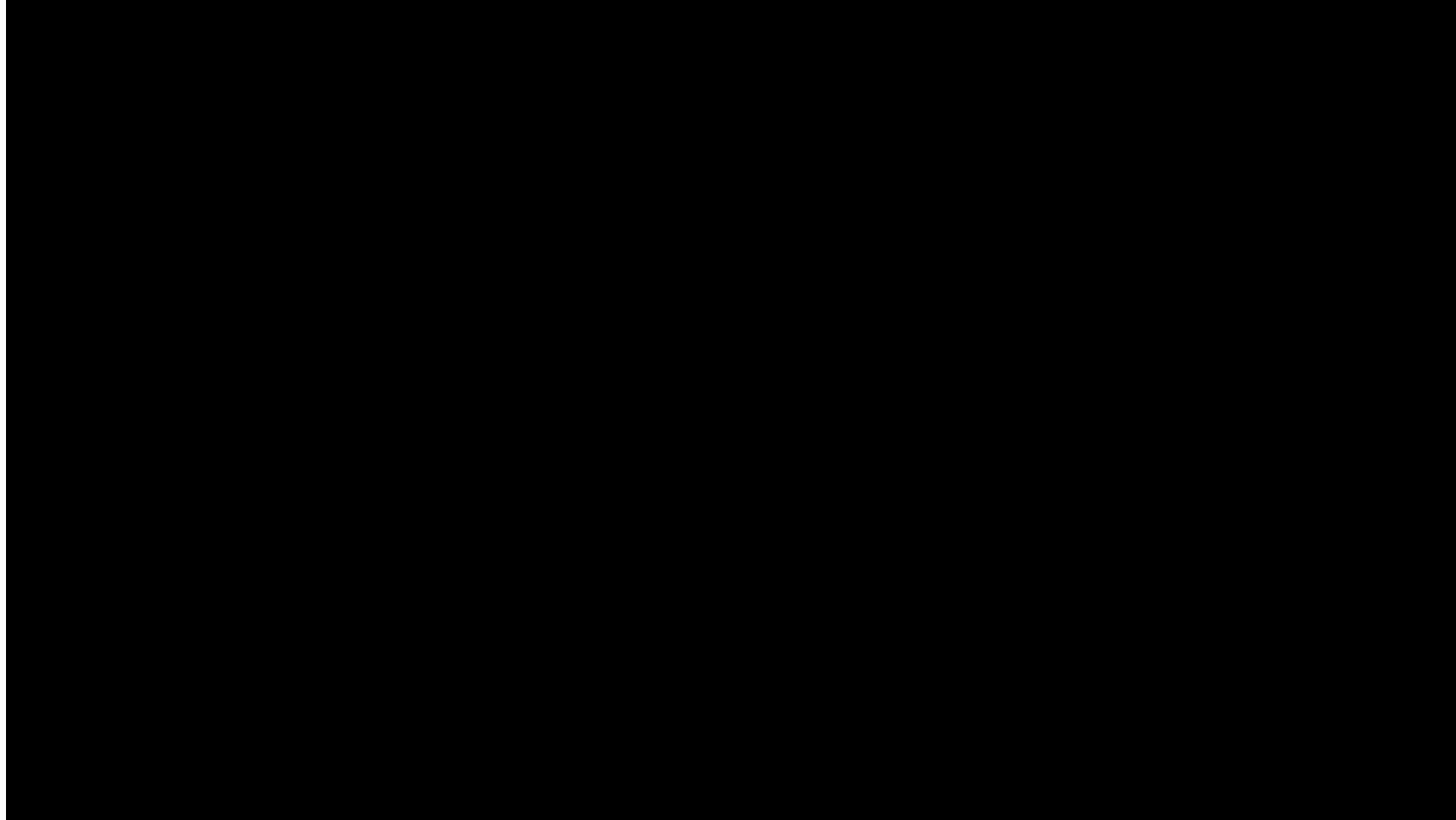
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Archicad® **FEATURES**



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USERS & PROJECT



LWK +PARTNERS



“ *We chose Archicad, because our ultimate purpose is to make things work.* ”

William Cheung
Director, LWK + Partners

“ *We didn't set out to be BIM users only – we also see ourselves as promoters to influence our peers in the industry.* ”

William Cheung
Director, LWK + Partners



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**LWK
+PARTNERS**



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— AppliCAD —



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**"TEAMWORK MADE US REALLY
EXCITED ABOUT THE PROSPECTS
OF WHAT IT MEANT FOR US AS AN
ORGANIZATION."**



Nonda Katsalidis and Karl Fender, Principals
FENDER KATSALIDIS, Australia



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QUEEN'S WHARF PROJECT
BRISBANE, AUSTRALIA



COTTEE PARKER ARCHITECT

— AppliCAD —



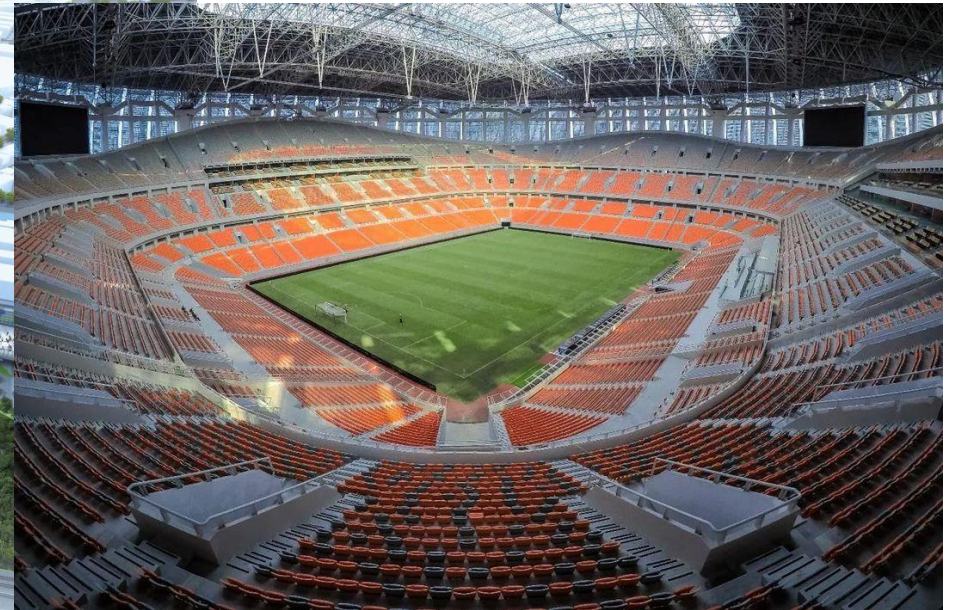
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JAKARTA INTERNATIONAL STADIUM | PDW ARCHITECTS |
pdw.co.id



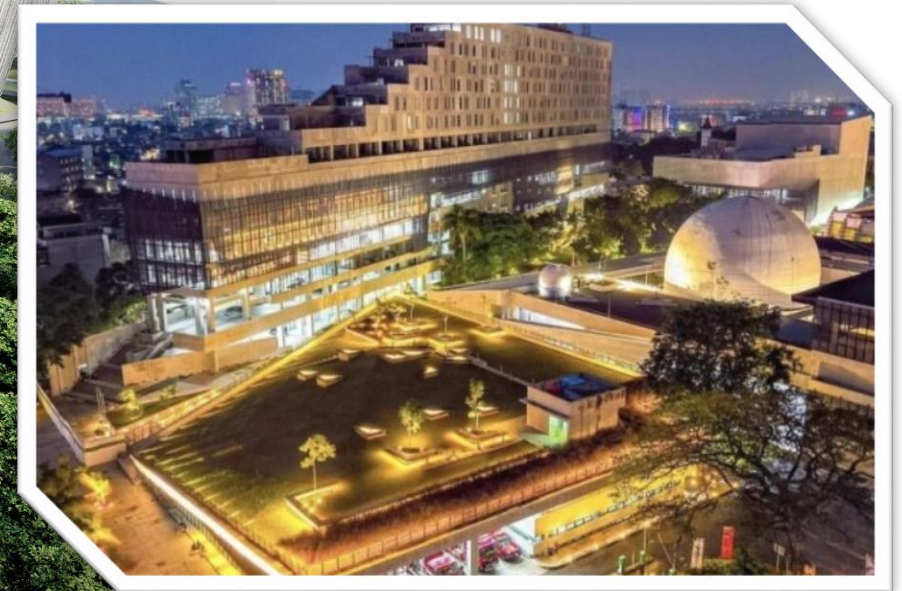
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REVITALISASI TAMAN ISMAIL MARZUKI JAKARTA



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RENOVASI MALL SARINAH (MALL PERTAMA INDONESIA)



THANK YOU