



Internet's Bulk Data to manage The BIM based BIM Integration Solutions.

2/chiBIN

ArchiBIM Server **Outline**

ArchiBIM Server can be known as processing as well as managing the bulk BIM (IFC,RVT) File's transmission/reception solution, it can also extract the BIM file's information Database and including middleware interlocking BIM management solutions.

It can provide through web environment best management method when managing the bulk BIM Data based and by using the data optimization function it may provide optimum BIM Data through other tools.

Also base on JAVA as they're designed on a modularity it is possible to customize System environment and when connecting with other products and upgrading the system they can have flexible working.

Operating Environment

■ Hardware Environment

- CPU: More than 2CPU (More than 4CPU recommended)
- WAS System Memory: 4GB RAM (More than 16GB recommended)
- DB Server Memory: 4GB RAM (More than 16GB recommended)
- DISK: Depends on the size of BIM Data (More than 1TB recommended)

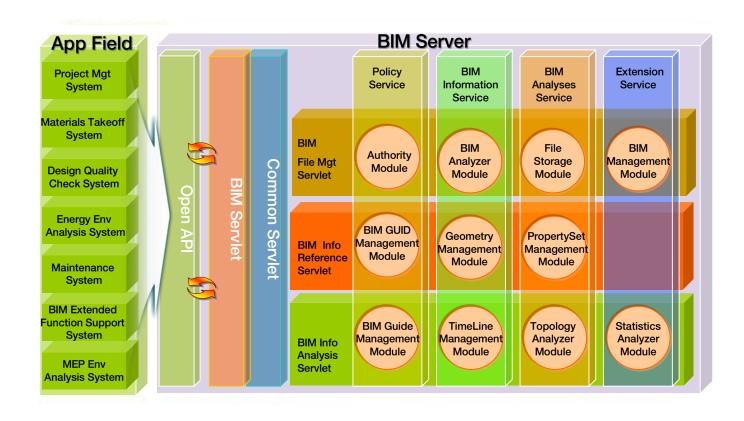
Software

Environment, Windows

WAS: WebLogic, Resin, Jeus, Tomcat ■ DB: Altibase, Oracle, MS-SQL, MySql

■ JAVA: More than JDK 1.5 Protocol: Http (80 Port)

ArchiBIM Server Keymap



By data basing BIM (IFC,RVT) file, it enables bulk information to be supported quickly through Open API.



ArchiBIM Server Spacial Function

■ Managing the Bulk File

ArchiBIM Server provides to users for structural of BIM (IFC,RVT) File and as they manage through Database, the Bulk Data can be managed effectively.

Data Optimization

ArchiBIM Server provides to users when they want to extract the file they want, they can extract them through bulk BIM File. Also by applying variety of BIM including Energy Analysis and Solar Rights Analysis, people can be offered with required information from above applications by using ArchiBIM Server and uploading bulk file not required.

Other application program's Integration practice

ArchiBIM Server's individual function consists of OpenAPI Module, its compatibility with other application programs are exceptional. As time to upgrade a new function, its high compatibility with other application program is essential element for system integration.

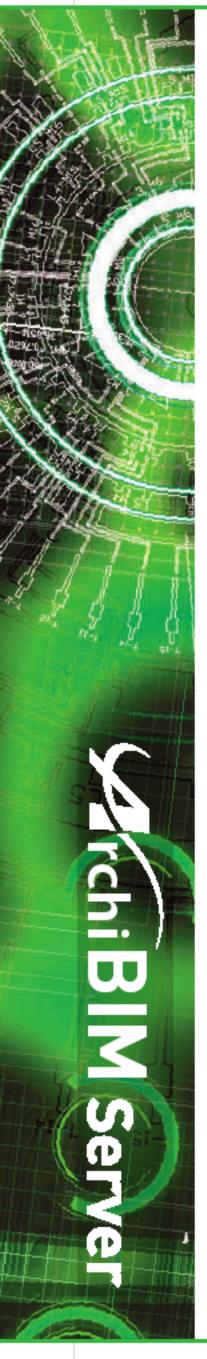


Application Field

Can be field for Architecture part's every process







ArchiBIM Integration Solution Main Function

■ Project Management

Project Management manages on BIM Integration for design phase, structure phase, construction phase, maintenance phase and it manages concept on exchanging the information between cooperative team as well as managing between the stage process team and other different team on BIM Information Management.

• File Management

Provide files thumbnail and manages registered file history.

Task Management

For the effective management of project, manager grants and manages task to

User Management

It manages users who participate in project and grant to users individually.

■ File Transmission Management

File Transmission can be divided for carrying out 'Upload' and 'Download', so every formats can be possible to transmit. It is especially specialized on managing the safely transmitting the bulk BIM File.

Data Management

Managing the BIM File

It is to extract the uploaded BIM File's information and construct the Database.

Data Optimization

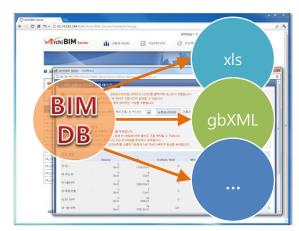
this function enables to extract minimize required data from database and is the ArchiBIM Server's main function.

■ Library Management

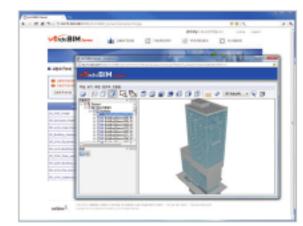
This is function which manages BIM library essentially during the BIM design and it provides a library registered management and library browser. For the Revit it will provide plug-in and it can utilize registered server on library.

■ Interface Control

ArchiBIM Server provides Open API Module which connects with other application program and it offers variety of data for other product.



Connecting Data Optimization



Connecting BIM Viewer

■ Viewer Function—Interface with ArchiBIM Viewer

Reading the File (IFC,VRML)

Basically supports the IFC File reading, for the VRML Format which was created from BIM files(IFC,RVT) in ArchiBIM Server, they're 10 times improved performance than existing IFC Reading.

Viewer's Basic Feature

Provides normal 3D model viewer's expansion/reduction/movement/rotation as well as provides using the OSNAP function's distance measure, superficial measure and angle measure.





Distance measure

■ Analysis Function Interface with ArchiBIM Viewer

• Checking the Quality

Provides checking of Basic Quality Checking for BIM File's file structure, integrity and GUID check and also provides the Detail Quality Checking based on shape and attribute data from the Guideline.

• 2D floor plan creation

Creates by using the 2D shapes expression on ground plan from the 3D object's shape information.





2D floor plan creation

examples of 2D stair element

Space Analysis

By using the 3D object's shape information enables space analysis and shortest space.



Shortest Space between space

each space and shortest space's direct stairs

Shape Profile Analysis

It enables to analysis and Collusion Checking analysis by looking at architecture/ structure/MEP each BIM File in one screen.

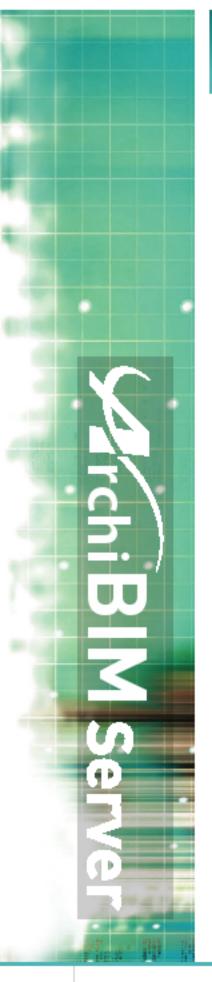




Interference Check example

majority of BIM File Loading

With Server's inherent technology,
users can use this by extracting the
optimizing the data and make connection
with BIM (based) app program.



ArchiBIM Server Patent

Data Optimization

ArchiBIM Server enables from bulk BIM File, the users can extract the required information and provides to users.

Patent No 10-111732, METHOD FOR PROVIDING ATTRIBUTE-BASED BIM(BUILDING INFORMATION MODELING) INFORMATION AND SYSTEM THEREOF.

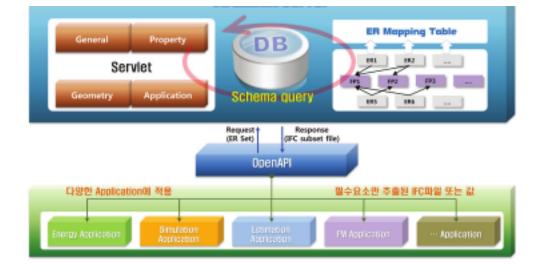
Patent No 10-1235042, METHOD FOR PROVIDING DATA INCLUDED IN BUILDING INFORMATION MODELING DATA FILE, RECORDING MEDIUM THEREOF, AND SYSTEM USING THE METHOD.

Other Application Program's Integration realization

ArchiBIM Server's individual function comprises of Open API Module, so its compatibility with other application program is outstanding. It is essential to check the data's quality and provide important data. It also provides environment for BIM's connection on application program.

Patent No 10-1230929, METHOD FOR PROVIDING DATA USING BUILDING INFORMATION MODELING SERVER.

Applied in US, Europe, China, Japan, Vietnam, Philippines and Singapore, METHOD FOR PROVIDING DATA INCLUDED IN BUILDING INFORMATION MODELING DATA FILE, RECORDING MEDIUM THEREOF, SYSTEM USING THE METHOD, AND METHOD FOR PROVIDING DATA USING BUILDING INFORMATION MODELING SERVER.



App example of ArchiBIM Solution

■ App example of Intelligent Architecture Administration System (Seumter)

Seumter BIM Management System's Application method of Intelligent Architecture Administration System includes BIM submission's review and analysis as well as having a system management function which is managed by server. Also it comprises of model drawing guideline and submission guideline include on document guideline.

Seumter BIM Management System (Server)

This is a server which covers National Autonomous Body's carrying out on BIM Design Drawing and building permission to BIM File Management and by using the Open API it carries out submission, review and analysis.







log-in

guideline management

space colored remarks management

Seumter BIM Standard

It can be divided to model drawing guideline and submission guideline and includes guideline's document.







Seumter space classification system



App example of ArchiBIM Solution

App example of Intelligent Architecture Administration System (Seumter)

· File Submission

Register document & BIM to Seumter. BIM File carries out basic quality check.



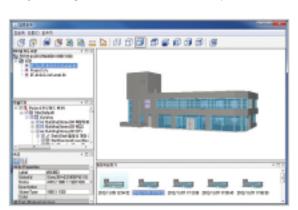
Registering the application



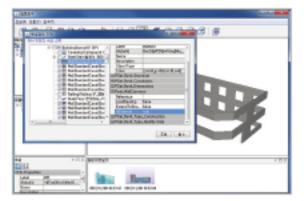
Submission of Seumter BIM design drawing

• File Check

By using the BIM File's shape information & attribute data, it can review visualization on 3D.



3D Visualization shape information



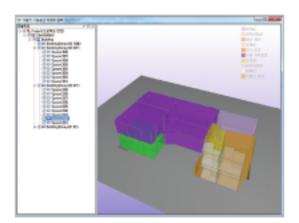
Review of Seumter BIM design drawing

· Calculating the Area

By using the Calculation Data, it can automatically calculate building's total floor area, building coverage, floor area ratio and it reduces the time to entry into Seumter.



2D plane creation area analysis



space painting remarks through space analysis

ArchiBIM Series



| Product | Main Function |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ArchiBIM Server | I BIM Integration Management Solution I • Web Mgt, Project Mgt, User Mgt • Data Mgt • Data Optimization, Guideline Mgt, Link Service Mgt |
| ArchiBIM Viewer | I BIM Viewer Solution using the Web I • 3D Viewer Function • Distance Measure, Area Measure, Angle Measure • Attribute Data, Monitor Save & Linkage Service |
| ArchiBIM Analyser | I BIM Analysis Solution using the Web I Basic Product Check, Details Product Check Details Product Check Plane Formation Space Analysis (Shortest Distance), Interference Check |

 $[\]ensuremath{\mathbb{X}}$ Products can possible to use Independently.

^{*} ArchiBIM Integration Solution has synergy effects based on ArchiBIM Server and by integrating Viewer

[&]amp; Analyser when constructing System.