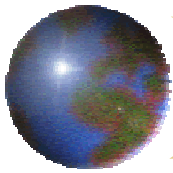


事例紹介



Munkerud プロジェクト

● 集合住宅 36棟

● Søndre Nordstrand, オスロ

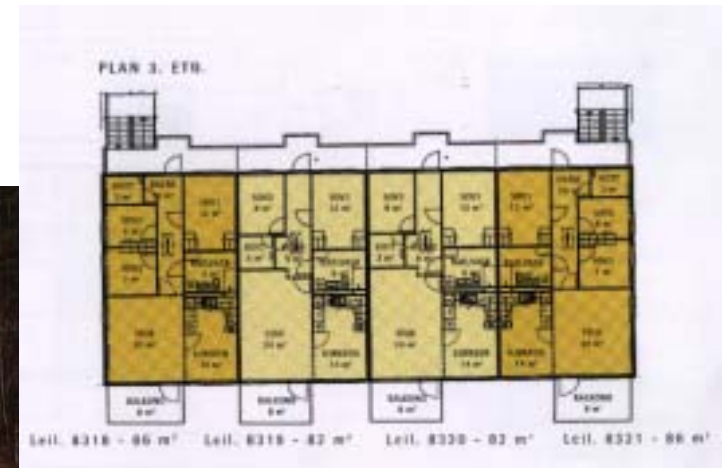
● 2003年に完成

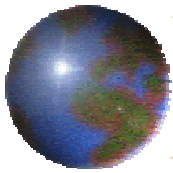
Byggetrinn I (36 units)

House 6 – 2U 2 (6 units)

House 7 – 3G 4 (12 units)

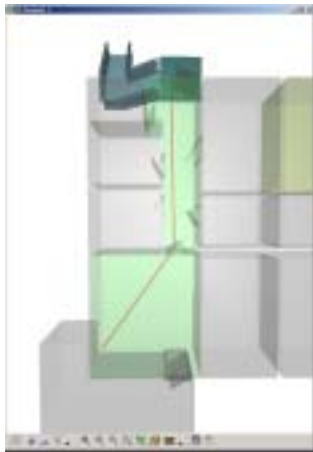
House 8 – 3G 2V/2 (18 units)



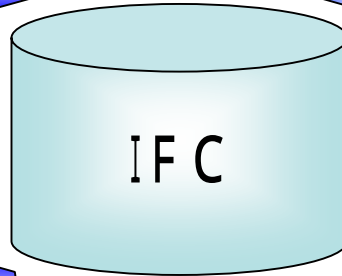


IFC連携の概要

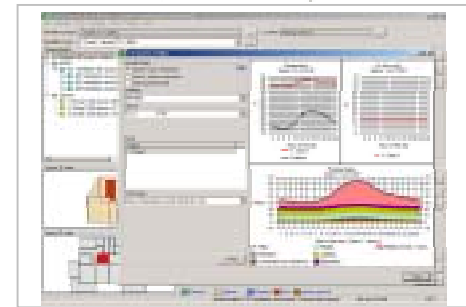
意匠設計 –
Graphisoft, ArchiCAD
DDS, ArkPartner



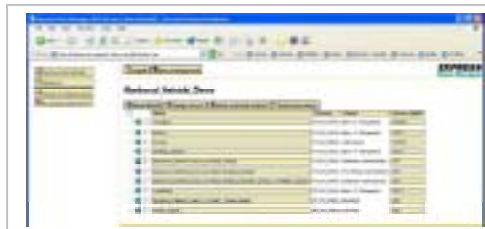
モデルチェック – SMC
Solibri Model Checker



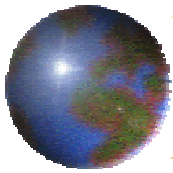
設備設計 –
DDS, HVAC Partner
DDS, Electro Partner



エネルギーシミュレーション –
Riuska

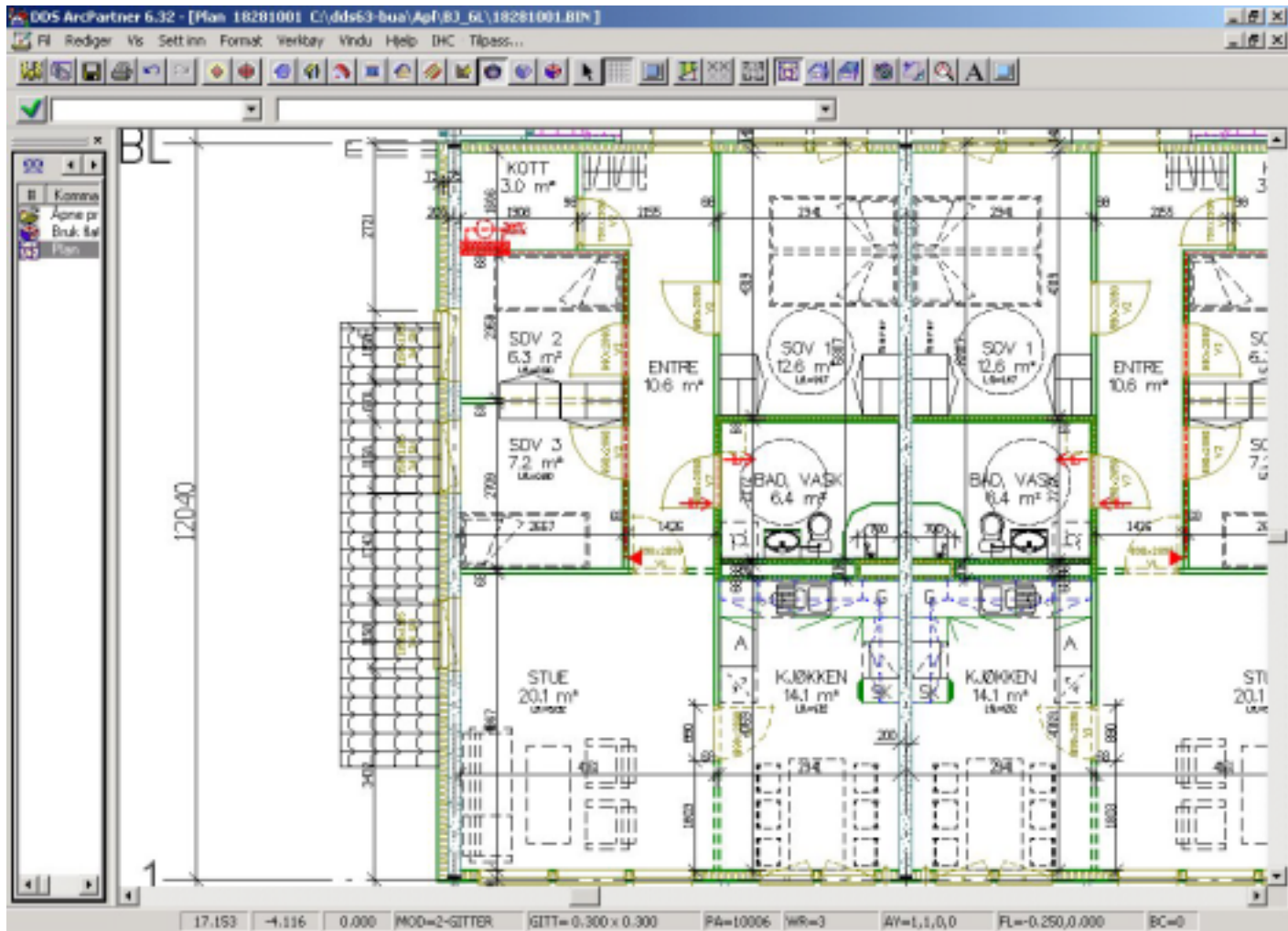


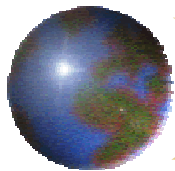
モデルサーバー –
EDM Model Server



意匠設計

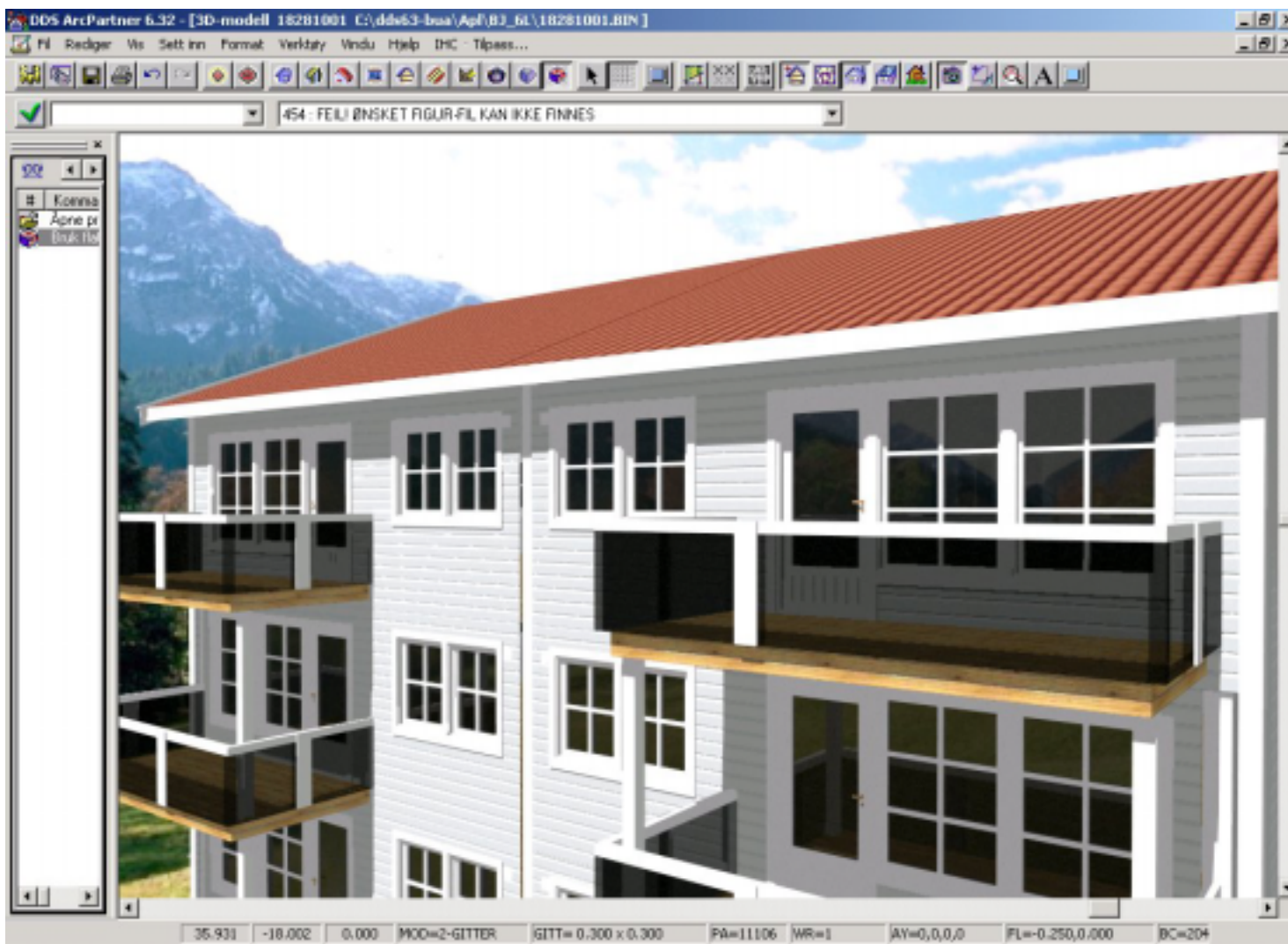
- ソフトウェア: DDS社 Ark Partner

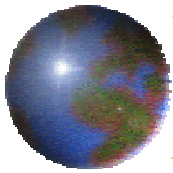




3次元ビジュアライゼーション

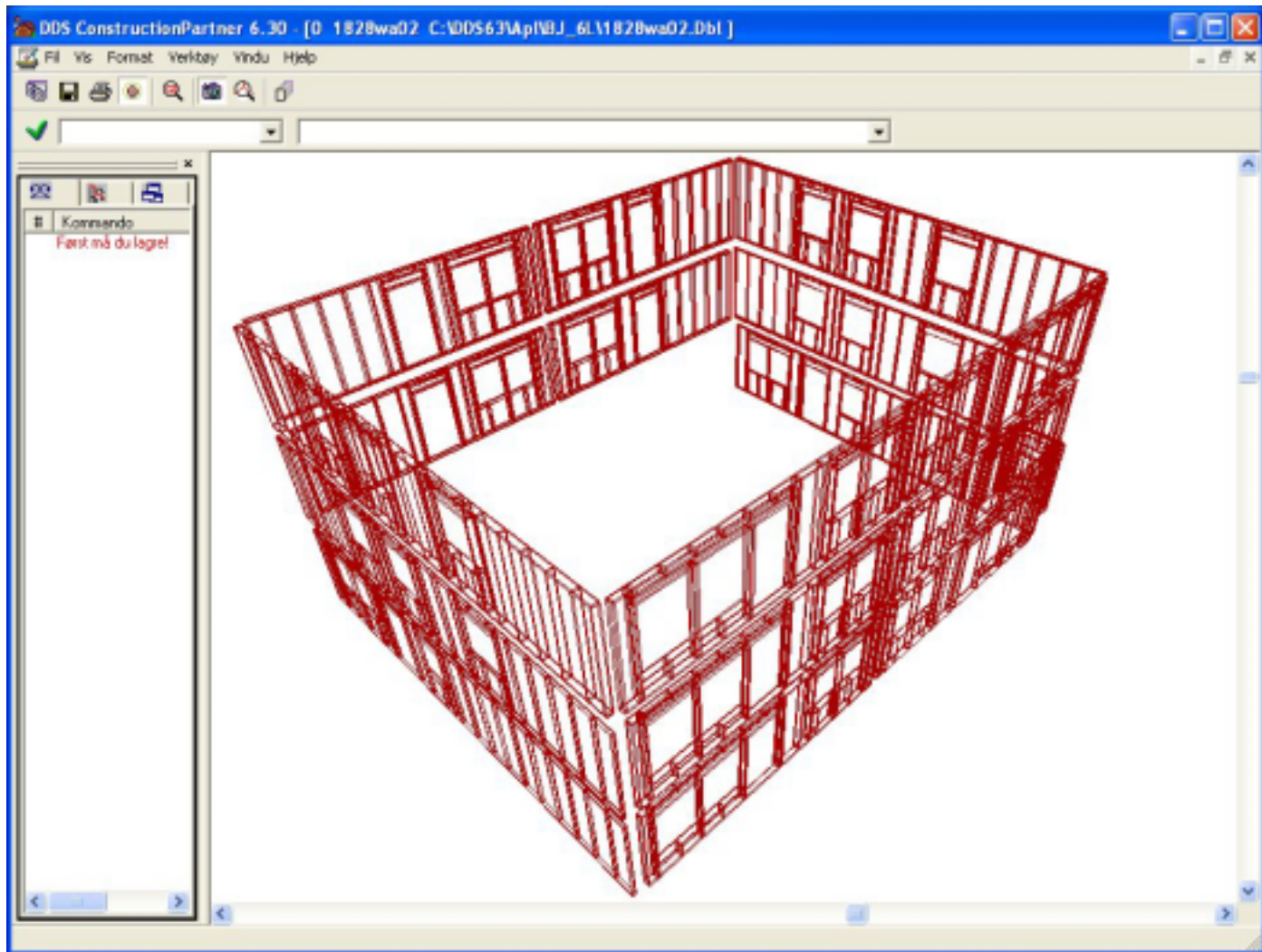
•ソフトウェア: DDS社 Ark Partner

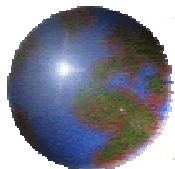




木造構造設計

- ソフトウェア: DDS社 Construction Partner
- IFC 拡張スキーマ ST-5: Timber Frame Detailing





施工図面作成

- ソフトウェア: DDS社 ConstructionPartner 6.3

DDS ConstructionPartner 6.30 - [Main 18282501 C:\dds63\Ap\BJ_4L\18282501.BN]

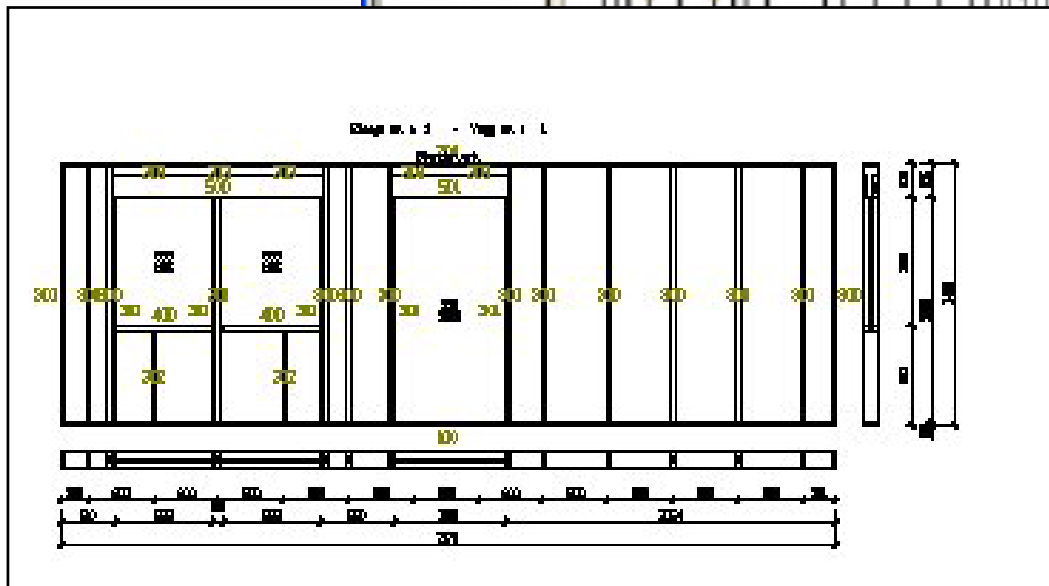
STENDERVERKSDATA

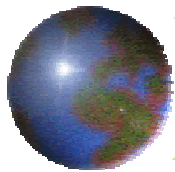
Alle mål i cm, vinkel i grader
Prosjekt: 1828, etasje 1, vegg nr. 1, navn =
Prosjektassent:
Tiltekningsnr:
Adresse 1:
Adresse 2:
Dato: 08.12.01
Ansvarlig: SIN

Konstruksjonsstørrelse - PRECUT

Størrelse	Lengde	Vinkel	Nr.	Antall
Bunnvill				
Ødrensjon 36 x 148	7170	90.0 90.0	100	1
Toppevill				
Ødrensjon 36 x 148	7170	90.0 90.0	200	1
Stendere				
Ødrensjon 36 x 148	2358	90.0 90.0	300	13
36 x 148	2069	90.0 90.0	301	6
36 x 148	838	90.0 90.0	302	2
36 x 148	91	90.0 90.0	303	5
Loeholt				
Ødrensjon 36 x 148	898	90.0 90.0	400	2
Drager				
Ødrensjon 48 x 198	1968	90.0 90.0	500	2
+ 48 x 198	1062	90.0 90.0	501	2

0.300 FIG.NA=P1001 0001 L-01





IFCモデルデータ自動チェック

- ソフトウェア: Solibri社 SMC (Solibri Model Checker)
- モデル制約: 部材干渉・避難路・材質組み合わせ・属性値範囲等

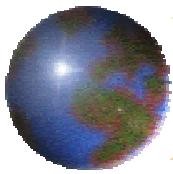
The screenshot displays the Solibri Model Checker (SMC) software interface. The main window is titled "Solibri Model Checker" and shows a 3D viewport on the right and a list of issues on the left. The 3D viewport shows a building model with a red beam and a green beam highlighted, indicating a conflict. The issues list is as follows:

Constraint	Result
-A Precheck of the Model	Issues
-The model should have components	Passed
-Components should have a construction type	Issues [14]
-Typical Modeling Problems	Issues
-Inconsistent Component Properties	Issues
-Space Properties	Issues
-Space Location	Issues
-Interference Checking	Issues
-Interferences - Same Kind of Components	Issues
-Wall - Wall Interference	Issues [20]
-Slab - Slab Interference	Issues [21]
-Roof - Roof Interference	Passed
-Beam - Beams Interference	Issues [24]

The "Issues" list is expanded to show the following details:

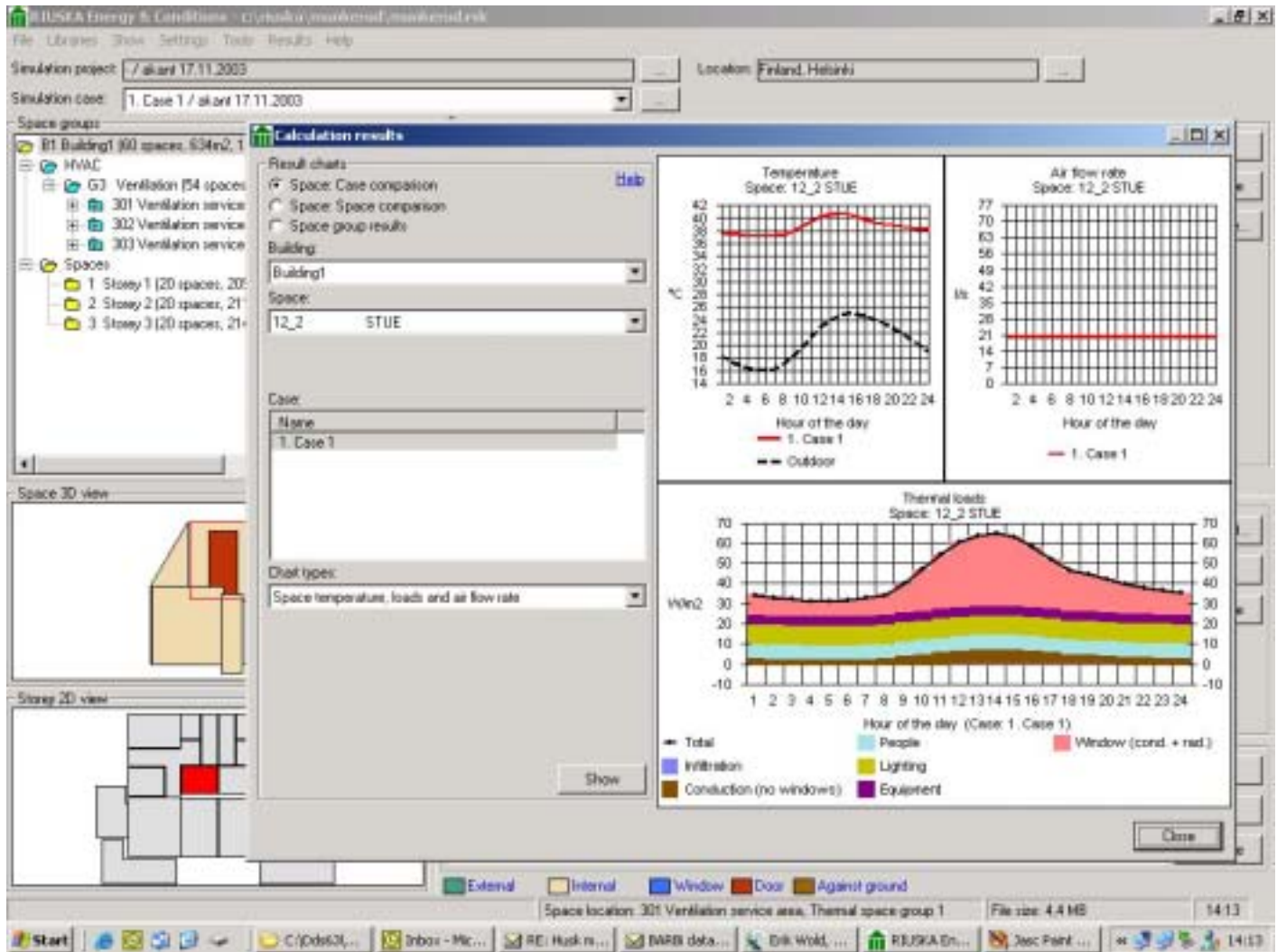
- Intersecting components in storey: Btg [B2]
- Intersecting components in storey: 1 slg [G2]
 - Beam 0.1 and Beam 0.3 are intersecting
 - Beam 0.1
 - Beam 0.3
 - Beam 0.2 and Beam 0.4 are intersecting
 - Beam 0.2
 - Beam 0.4

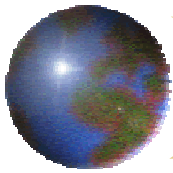
The description for the selected issue is: "Intersection between Beam 0.4 and Beam 0.2: w = 80 mm, d = 70 mm, h = 280 mm".



エネルギー消費シミュレーション

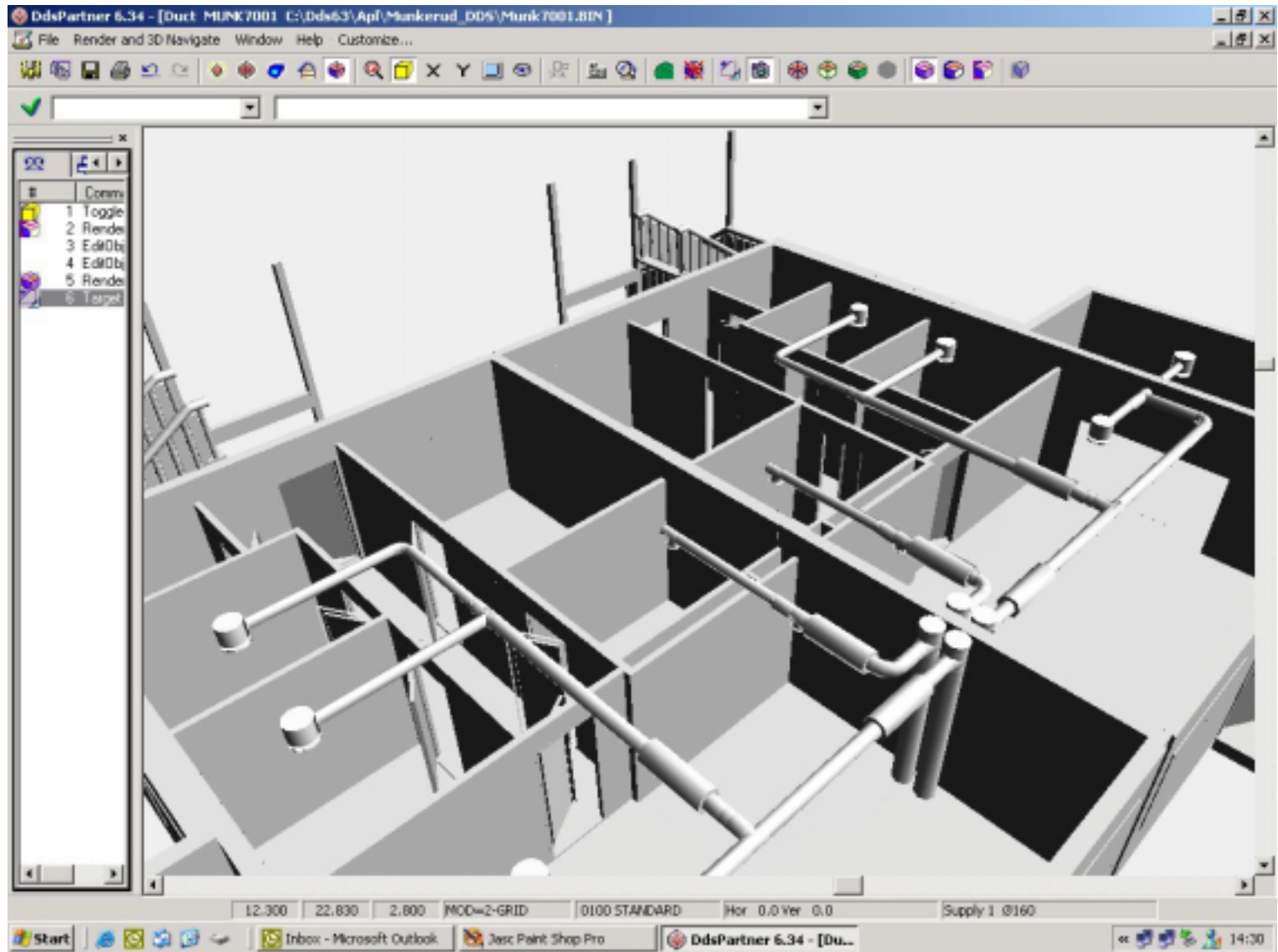
- ソフトウェア: Olof Granlund社 Riuska

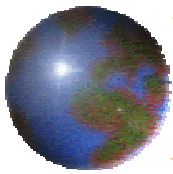




空調設備設計

- DDS社: HVAC Partner





電気設備設計

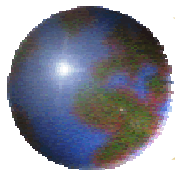
- ソフトウェア: DDS社 Elektro Partner

The screenshot displays the DDS Elektro Partner software interface. The main window shows a 3D wireframe model of a room with various lighting fixtures and wiring. Overlaid on the model are several configuration windows:

- Insert Light fitting wizard:** A dialog box for configuring a light fixture. It includes tabs for General, Color / Layer, Placing, Scaling/Extra, Part test, and Connected. The General tab is active, showing fields for Effect (50), Number tubes (1), Pendant length (55), Location (Free), and a height of 2.2 m. It also has checkboxes for "Render light ON/OFF" and "Draw T5 on symbol", and an Article Number field (04245) with a "Calculate to BOM" checkbox. The article name is "LAMPEPUNKT PÅ VEGG M/BOKS".
- Article database:** A window showing a tree view of light fixture categories and a list of articles. The tree view includes categories like "Int. halogenia", "Gjædelampe i tak - åpen", "På tre", "På mur/betong", "På gips", "Lyskaster i tak", "På tre Dekket", "På mur/betong Dekket", "På gips Dekket", "Gjædelampe på vegg - skjult", "På tre", "Dekket", and "Tett". The article list shows the following data:

Artikkelnummer	Beskrivelse
05479	LAMPEPUNKT PÅ VEGG M/BOKS
042AR	SPDLYLIGHT
042BS	LAMPEPUNKT PÅ VEGG M/BRYTER M/BOKS
00337	VEGGHOLDER E27 ISOL. STOFF
00338	VEGGHOLDER E27 PORSELEN
00340	VEGGESLAG E27 PORSELEN M/KUPPEL 75W

The software interface also shows a Windows taskbar at the bottom with icons for Start, Inbox - Microsoft Outlook, Jasic Paint Shop Pro, and the DDSPartner 6.34 application. The system clock shows 14:26.



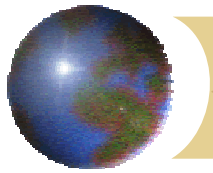
設備設計データ統合

- ソフトウェア: D D S 社 DdsPartner

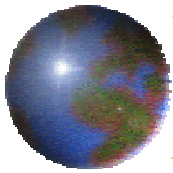
The screenshot displays the DdsPartner 6.34 software interface. The top window shows a 3D perspective view of a building floor plan. The middle window shows a 2D HVAC layout with various components labeled, including SOV 1 (019, 12.6 m²), SOV 2 (015, 6.2 m²), SOV 3 (014), ENTRE 012 (10.6 m²), and BAD WASK. The bottom window is a 'Room Dialog' window with tabs for 'Room data', 'Heat Requirement', 'Heating Facilities', and 'Hc Properties'. The 'Room data' tab is active, showing a table of room properties.

Name	Value	Description
VentilationAirFlowrate	0.0071 m³/s	Ventilation outside air requirement.
ExhaustAirFlowrate	0.0071 m³/s	Exhaust air flow rate for the space.
TotalHeatGain	0 W	The total amount of heat or energy gained by the space at the time of the space's peak cooling conditions.
HeatingDryBulb	20 °C	Inside dry bulb temperature for heating design
CoolingDryBulb	27 °C	Inside dry bulb temperature for cooling design
TotalHeatLoss	210 W	The total amount of heat or energy lost by the space at the time of the space's peak

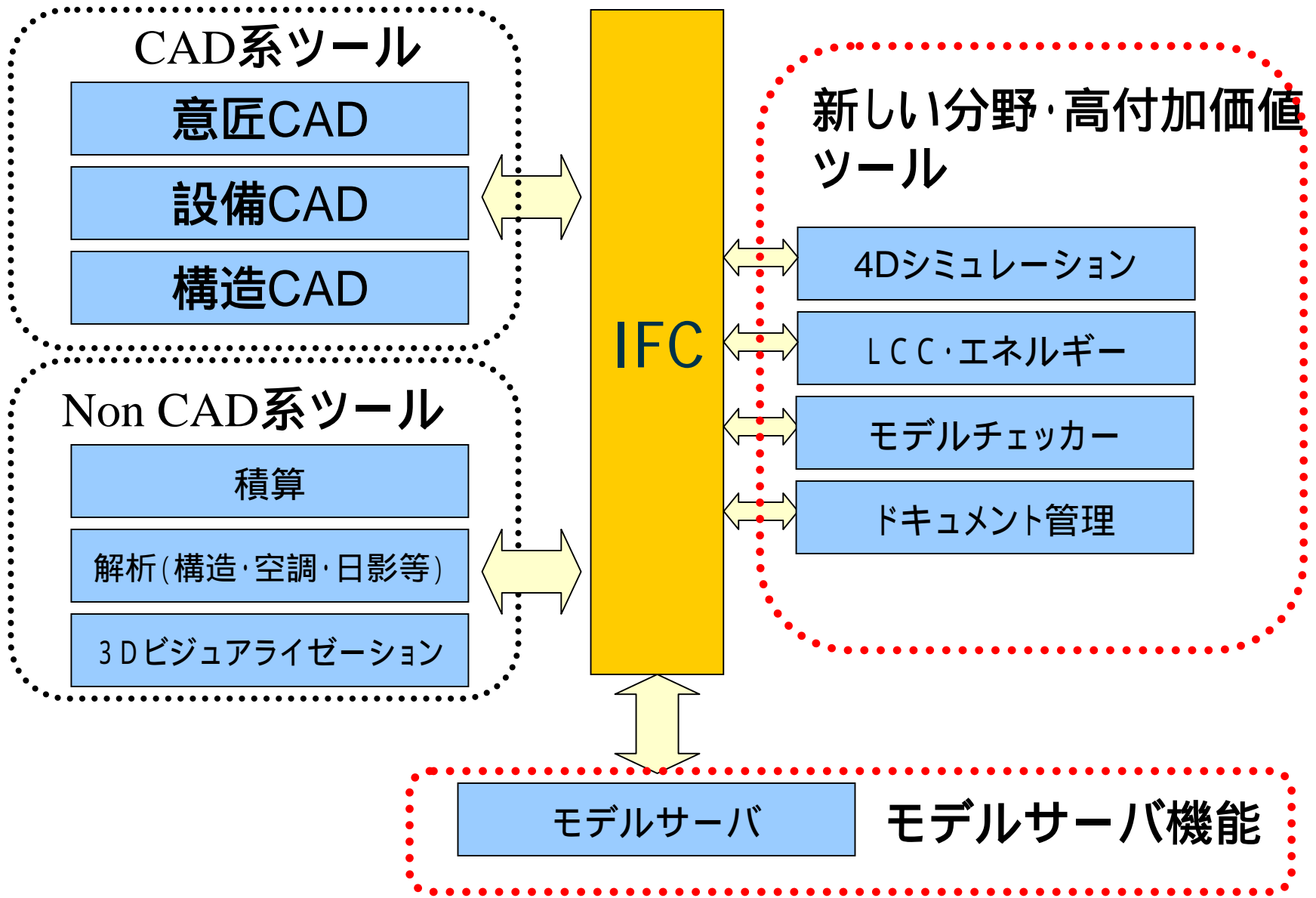
At the bottom of the Room Dialog window, there are checkboxes for 'General properties' (checked), 'Property sets' (checked), and 'Materials' (unchecked).

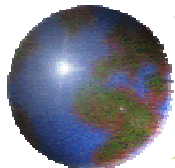


IFC活用のパターン



IFC対応ソフトウェアの分類





IFC活用プロジェクトの方向性

ビジネスプロセス開発

モデルサーバー

部分モデル更新・抽出

XML / Web Service

建材コンポーネント産業

電子カタログ・辞書

ISO-12006-2,3

(製造業 + IT)

建具・家具・プレカット

新分野・高付加価値サービス

モデルチェッカー

施工

FM

4Dシミュレーション

LCC

調達・購買

ドキュメント管理

GIS

既存ツール間のデータ連携

意匠CAD

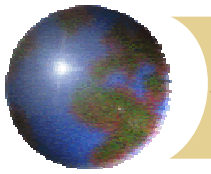
積算

設備CAD

解析

構造CAD

3D...



終わり