Programvaregruppen

Hans Kristian Grani
Daglig leder Areo
Interim leder Programvaregruppen

buildingSMART Norge medlemsmøte 20 mar 2019

areo

member of buildingSMART®

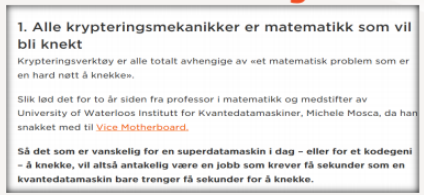
1 Inovico AS
2 Pipelife Norge AS
3 PointGeo AS
4 [mok-see] AS
5 Betongelementforeningen
6 Holte Academy AS
7 Symetri Collaboration AS
8 Vixel AS
9 Løvenskiold-Vækerø AS
10 Hordaland fylkeskommune
11 ITassist AS
12 Vitir AS
13 Xlayer Technologies AS
14 Rasterex Software a.s
15 Dimension10 AS
16 Bergen kommune, Etat for utbygging
17 Statnett SF
18 Geograf AS
19 Nittedal-eiendom KF
20 Norske Rørgrossisters Forening
21 Arkitektum AS
22 Trøndelag fylkeskommune
23 Rejlers Norge AS
24 ARTEC AS
25 Østfold fylkeskommune
26 Infrakit AS
27 Norsk Kommunalteknisk Forening
28 Høgskulen på Vestlandet
29 Ing. Rasmussen & Strand AS
30 Skylstad Arkitektur AS
31 EG Norge AS
32 Meto Pro as
33 Høgskolen i Østfold
34 C3 BIM AS
35 3RW arkitekter AS
36 Universitetet i Agder
37 RiK Arkitektur
38 Statens vegvesen
39 Elektroforeningen
40 NTNU i Ålesund
41 Skedsmo kommune
42 Smarte Byer Norge AS
43 Nye Veier AS
44 Dalux AS
45 Rettberg Consulting AS
46 Niras Norge AS
47 APX systems AS
48 Mobile Worker AS
49 nLink AS
50 Erichsen&Horgen AS
51 GS1 Norway
52 Smart Construction Cluster SA
53 Smart Construction Academy
54 Ullensaker kommune
55 Edok AS
56 View Software AS, avd. Facility Management
57 NESO SA
58 Sykehusbygg HF
59 Universitetet i Bergen
60 SmartDok AS
61 uniZite AS
62 Grethes Hus AS
63 Fagskolen Innlandet
64 Vitec Plania AS
65 EDR & Medeso AS
66 TAG Arkitekter AS
67 NTI CADcenter AS
68 Proim
69 Direktoratet for byggkvalitet
70 Høgskolen i Sørøst-Norge
71 EBA - Entreprenørforeningen Bygg og Anlegg
72 Autodesk AB
73 Hovedorganisasjonen Virke
74 Attensi AS
75 Celsa Steel Service AS
76 Interactive Norway AS
77 Møre og Romsdal Fylkeskommune
78 4B Arkitekter
79 Bjørn Jørgensen AS
80 Aas-Jakobsen AS
81 CHECKD AS
82 Verdinettverk AS
83 Rendra AS
84 Østfold fagskole
85 Høgskolen i Oslo og Akershus
86 Norsk Bygg- og Eiendomsforening (NBEF)
87 Areo AS
88 Kruse Smith Entreprenør AS
89 NTNU i Gjøvik
90 VA- og VVS produsentene VVP
91 Byggevareindustriens Forening
92 St. Olavs Hospital HF
93 LINK arkitektur
94 Statsbygg HK
95 COWI AS
96 Holte AS
97 Norconsult AS
98 Powel Construction AS
99 Focus Software AS
100 Data Design System AS
101 Norsk Byggtjeneste AS
102 Rambøll Norge AS
103 GK Norge AS
104 Multiconsult Norge AS
105 Undervisningsbygg Oslo KF
106 Dørteknikk AS
107 Inger Hokstad AS
108 RIF
109 Catenda AS
110 Narud-Stokke-Wiig Arkitekter og Planleggere AS
111 Jotne EPM Technology AS
112 Standard Norge
113 coBuilder
114 Helse Sør-Øst RHF
115 Nelfo Norges Elektroentreprenørforbund
116 Boligprodusentenes Forening
117 Trimble Solutions Sandvika AS
118 Fagskolen Oslo Akershus
119 SWECO Norge AS
120 dakantus+ AS
121 Prosjektutvikling Midt-Norge AS
122 Forsvarsbygg
123 MultiBIM AS
124 Arkitektbedriftene i Norge
125 dRofus AS
126 Symetri AS
127 Asplan Viak Sør AS
128 Norges miljø- og biovitenskapelige universitet
129 NTNU, Institutt for bygg- og miljøteknikk
130 Graphisoft Norge
131 Logiq AS
132 Avinor AS
133 Veidekke Entreprenør AS
134 Plan og Prosjekt Lillehammer Arkitektteam AS


[openLAB: hackathon]


LIVINGLAB: BIM + FDV
HACKATHON

Skybaserte løsninger har flere utfordringer.

- **Sikring av data:**
  - **Sikring mot tap av data**
  - **Sikring mot korumpering av data**
  - **sikring mot uønsket spredning av data**


1. Alle krypteringsmekanikker er matematikk som vil bli knekt

Krypteringsverktøy er alle totalt avhengige av «et matematisk problem som er en hard nøtt å knekke».

Slik lød det for to år siden fra professor i matematikk og medstifter av University of Waterloos Institutt for Kvantedatamaskiner, Michele Mosca, da han snakket med til Vice Motherboard.

Så det som er vanskelig for en superdatamaskin i dag – eller for et kodegeni – å knekke, vil altså antakelig være en jobb som krever få sekunder som en kvantedatamaskin bare trenger få sekunder for å knekke.

Sikkerhet:
Hvor lagres dataene.
EU krever lagring i Europa, Sykehusbygg krever lagring i Norge og sikkerhetsbaserte prosjekt krever lagring på eiers server.

- **Eierskap:**
Hvem eier disse dataene og hvem kan laste ned informasjon til egne lokale servere. Er det den som betaler for løsningen, de som produserer eller kunden som betaler for prosjekteringen?

COWI

Rettigheter

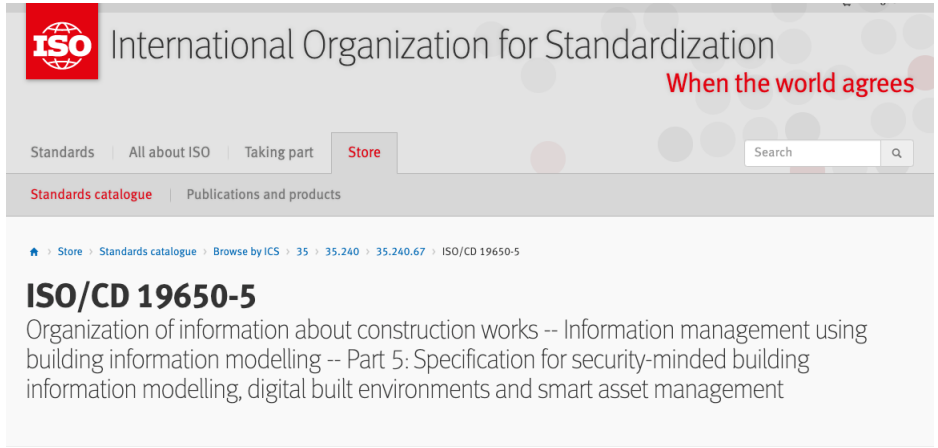
Standardkontrakter har bestemmelser om hva de prosjekterende skal overlevere til kunden ved endt prosjekt. De er ikke forberedt på at det er kunden som har eierskap til alt som blir produsert i prosjektet, og inneholder derfor **ingen bestemmelser om hva prosjekteringsgruppen har krav på** å ta med seg ut av prosjektet.

COWI

Platformkampen

- Skyene eies av programvareleverandørene og antall steder dataene lagres øker med antall program med egne skybaserte løsninger som benyttes i et prosjekt.
- Rådgiverselskaper med mange prosjekter får dermed en situasjon med mange «informasjonsøyer», der data ligger fragmentert eller dobbelt.
- Denne situasjonen fører til økt kompleksitet i selskapets drifts- og operasjonelle rutiner noe som igjen ,medfører økte kostnader
- Alle plattformene burde ha mulighet for å sette opp prosjektet med valgfri sky/ serverpark. Tunge beregninger bør kunne kjøres på sky basert programvare uten at hele prosjektet må lagres der.

COWI



Software Certification

Investment in the IFC Certification has been significant. The execution of this program was closely supported by software vendors and our Implementer Support Group (ISG). It has proved the value of our test bed capability and provided a body of knowledge as to what is really needed to support users. Many applications became certified for IFC2x3 Coordination View 2.0. Our Certification scheme for IFC4, launched 26th June 2017, is built on the experience of the past years.

IFC4 Reference View and Design Transfer View Certification

Based on the experience with IFC2x3 Coordination View 2.0, IFC4 Certification has been split into two more specific view definitions to better support the purpose of IFC data exchange.

Reference View

Launched 26th June 2017 on our new cloud-documentation platform known as the 'b-Cert platform'. Please register for certification at http://www.b-cert.org/

Purpose: To support the coordination of the planning disciplines; architecture, structural analysis and building services. Especially to support clash detection and resolution of issues resulting from geometry. This can be understood as a CV2.0 with slightly reduced and more focused range.

Design Transfer View

Purpose: To support the transfer of model data to be used for further design, analysis, estimating and facility management tasks. This can be understood as a CV2.0 with some extended range. Certification of the DTV will be launched, after some issues in this view definition are resolved.

Certification of both view definitions will differentiate between export and import. Also it will support the specific exchange requirements like the previous CV2.0.

These view definitions do not cover data-roundtrip.

IFC2×3 Coordination View Certification

This software certification scheme has tested the Coordination View Certification 2.0 (CV 2.0) for export and import of IFC2x3 files. The export test options are available to take account of the following exchange requirements.

Certified Software

Please click on a table heading to sort

Vendor	Application	Certification	Type	Date ▲	Download
BEXEL Consulting d.o.o.	Bexel Manager	CV2.0	import	2018/09/04	PDF
VenturisIT GmbH	TRICAD MS	CV2.0-MEP	export	2018/09/03	PDF
cadwork	cadwork 3D	CV2.0-Struct	export	2018/08/31	PDF
DATAflor AG	DATAflor BIM-MANAGER	CV2.0	import	2018/08/28	PDF
Mc4Software Italia S.r.l.	Mc4Suite	CV2.0-MEP	export	2018/08/06	PDF
ACCA Software S.p.A	usBIM.platform	CV2.0	import	2018/06/28	PDF
ACCA Software S.p.A	EdiLus	CV2.0-Struct	export	2018/06/05	PDF
Teamsystem S.p.A.	STR Vision CPM	CV2.0	import	2018/02/22	PDF
ACCA Software S.p.A	ManTus-IFC	CV2.0	import	2018/01/27	PDF
ACCA Software S.p.A	CerTus-IFC	CV2.0	import	2018/01/27	PDF
ACCA Software S.p.A	usBIM.viewer+	CV2.0	import	2018/01/27	PDF
ACCA Software S.p.A	usBIM.gantt	CV2.0	import	2018/01/27	PDF
ACCA Software S.p.A	usBIM.clash	CV2.0	import	2018/01/27	PDF
ACCA Software S.p.A	PriMus-IFC	CV2.0	import	2018/01/27	PDF
ACCA Software S.p.A	CerTus-PN	CV2.0	import	2017/11/21	PDF
ACCA Software S.p.A	TerMus	CV2.0	import	2017/11/21	PDF
Bricsys services	BricsCAD	CV2.0	import	2017/10/11	PDF
ACCA Software S.p.A	EdiLus	CV2.0	import	2017/08/24	PDF
ACCA Software S.p.A	Edificius	CV2.0	import	2017/05/31	PDF
cadwork	Lexocad	CV2.0	import	2017/05/23	PDF
Glodon Software Company Limited	Glodon Takeoff for Architecture and Structure	CV2.0-Arch	export	2017/01/06	PDF
Glodon Software Company Limited	Glodon Takeoff for Architecture and Structure	CV2.0-Struct	export	2017/01/06	PDF
CadLine Ltd	ARCHLine.XP	CV2.0	import	2016/11/08	PDF
Bricsys services	BricsCAD	CV2.0-Arch	export	2016/10/14	PDF
Kymdata Oy	CADS MEP	CV2.0-MEP	export	2016/04/11	PDF
Progman	MagiCad	CV2.0-MEP	export	2016/04/11	PDF
CadLine Ltd	ARCHLine.XP	CV2.0-Arch	export	2016/04/04	PDF
ACCA Software S.p.A	Edificius	CV2.0-Arch	export	2016/03/11	PDF

Thread

sc_norge

Anstein Skinnarland Feb 12th at 3:15 PM

Product Room har bedt Standards Committee om å lese og vurdere et forslag om IFC Translation.
Jeg ber om deres innspill og mening om dette, så jeg har grunnlag for å svare på vegne av buildingSMART Norge, på nedenstående spørsmål. Fristen for å svare er 7. mars, så jeg ber om tilbakemeldinger i denne tråden innen 5. mars.

"This will be valuable feedback to the Product Room and the Working Group for their further work before they submit a final Project Proposal to be voted on to proceed as an official buildingSMART International project."

- Is this proposal relevant for being developed in to an international standard, support digital workflow for the built asset industry.
- Is it of real international interest?
- Based on the current activity proposal, do you consider there to be a need to support the project with more resources or experts to achive its stated goals?
- If not, do you have any advise or comment to the current proposal?
- Are there any interest in your chapter or organization to support this project with resources or experts? If there is, please elaborate with more details and we will be in touch for further discussion and involvement. (edited)

Word Document

Activity Proposal template for translation of IFC V1 (002).docx
428 kB Word Document

9 replies

Hans Kristian Grani 1 month ago

Den delen av IFC som skal leses og forståes av maskiner bør ikke oversettes. Det å innføre oversettelser her vill innføre kaos og kompleksitet. De tingene som skal eksponeres til sluttbrukerne og gjøre systemene mer brukervennlig bør oversettes. Her er noe jobb startet allerede (deler noen bilder nedenfor) men om jeg har forstått rett vil dette etterhvert håndteres av bsdd. I tillegg vil noen land ha behov for å oversette forklarende tekst i standarder og guider som er der for brukerne. I Norge kan vi gjøre en vurdering om det er påkrevd eller om det er like greit p forholde seg til den engelske forklaringen (edited)

1

Hans Kristian Grani 1 month ago

Eksempel på oversettelse i IFC. Dette er for brukene, ikke for datamaskinene.

sensor.png

1

Hans Kristian Grani 1 month ago

Annet eksempel på oversettelse. Her ser en hvor variabel standarden er. Den forrige var europeiske oversettelser. Her er det Asiatene som ligger foran

WindSensor.png

buildingSMART

in your BIM http://www.buildingsmart.org/

Report abuse

Repositories 16 People 3 Projects 0

Find a repository... Type: All Language: All

bSDD

Official repository of the buildingSMART Data Dictionary at http://bsdd.buildingsmart.org

ifc bsdd psets

C# ★ 3 ⑂ 6 CC-BY-SA-4.0 Updated 3 days ago

BCF-XML

XML specification for BIM Collaboration Format

★ 104 ⑂ 41 Updated 9 days ago

IfcDoc

IFC Documentation and Toolkit

tools ifc official technical-room

C# ★ 55 ⑂ 26 AGPL-3.0 Updated 27 days ago

ProductData

Official repository for BIM product data with IFC

ifc

XML ★ 13 ⑂ 9 AGPL-3.0 Updated on 5 Feb

Ifc

Official IFC schema management and versioning repository

specification ifc official

★ 1 ⑂ 1 Updated on 20 Dec 2018

BCF-API

Web service specification for BIM Collaboration Format

★ 82 ⑂ 36 Updated on 22 Oct 2018

Top languages

C# JavaScript XML GAP
Web Ontology Language

Most used topics

ifc official

People 3 ›


berlotti
Léon van Berlo

bSI-Technical
bSI Technical Support


klacol
Klaus Aengenvoort

Feedback on the IFC4.2 Draft

Developers - IFC | Schema IFC4.2

borrmann Oct '18

Dear International IFC community,

The IFC-Bridge extension is ready for inspection. Please provide feedback on IFC 4.2 DRAFT in this forum until November 30th, 2018. You can find the schema and the HTML doc as well as the conceptual model underlying the extension here:

```
https://buildingsmart.sharefile.com/share/view/s619ceb7623d4b099/fod4202e-f6
```

Thanks!
André

3 Reply

4.2 - Domain/ Extension/ Update etc 2

created	last reply	replies	views	users	likes	link
Oct '18	Dec '18	9	283	6	5	1

1 MONTH LATER

PINNED GLOBALLY NOV 26, '18

maastad 1 Nov '18

Dear sir / madam

Here is the feedback from Norwegian Public Roads Administration and representatives from other Norwegian consultancy companies regarding the IFC Bridge project. This is a collaboration group in infraRoom in buildingSMART Norway.
We appreciate the work you have been doing to create a standard for BIM modelling for bridges and developing the IFC Bridge standard. As requested in the last expert panel, we now provide feedback on the IFC 4.2 DRAFT. As we don't have the full understanding of IFC Bridge, we have a few questions we hope you can help us answer.

All bridges in Norway are subject to an independent verification/design control. Structures designed for national and country roads have to be verified and approved by the Directorate of Public Roads before construction. Earlier this resulted in approved working drawings, but as the number of BIM projects increased, we now have a system for verifying models. In June 2017 we allowed independent design control of BIM models, and today we have 134 models registered in our "control system". The

Oct 2018

1 / 10
Oct 2018

Dec 2018

Norsk Byggtjeneste:

Nye muligheter etter digital sammenslåing

Etter en toårig innsats har en arbeidsgruppe ledet av Norsk Byggtjeneste koblet informasjonssystemene ETIM og BuildingSMART Data Dictionary. For BIM-brukere kan dette åpne mange nye dører, skriver Byggeindustrien på sine nettsider.

For første gang er systemene ETIM og BuildingSMART Data Dictionary (BSDD) blitt koblet sammen og snakker nå sammen i en stor skala. Klassifiseringene i ETIM er nå etablert som egen kontekst i den internasjonale BIM-ordboken BSDD, og er den største BSDD-utvidelsen i senere tid.

ETIM er en logisk klassifisering av alle byggevarer innen både bygg, elektro og VA/VVS basert på praktiske behov i verdikjeden, og er i bruk i 18 land. Systemet

Linked Data Working Group

The proposed buildingSMART Linked Data Working Group is responsible for building and maintaining a recommended version of an ifcOWL ontology as an equivalent to the IFC EXPRESS schema. The ifcOWL ontology is to be used in linked data and semantic web applications that consume IFC data. The group meets at regular intervals, both virtual and live, to keep track of and discuss possible enhancements to the ifcOWL ontology. The Linked Data Working Group is part of the Technical Room and closely interacts with the other working groups, such as the MSG and the bsDD-WG.

The Linked Data Working Group reports to the Technical Room for the purpose of helping provide guidance in the development of technical advancements that allow the implementation of robust Open BIM solutions to end users. This also allows the group to propose developments and enhancements for the existing bSI standards, so that they are more easily accessible via linked data technologies.

The role and purpose of the Linked Data Working Group is to:

- Be responsible for developing and maintaining a recommended ifcOWL ontology
- Propose technical enhancements and developments to the existing bSI standards in the Technical Room
- Align semantic web activities with ongoing efforts in buildingSMART, such as the bSDD.
- Provide support in the usage of an ifcOWL ontology

Composition & Operation

- Participation in the Linked Data Working Group is open to all Technical Room Steering Committee members, Technical Room Sponsors with active projects, SACs, and International members of bSI.
- The Linked Data Working Group meets at least once each month
- Reports to the Technical Room

The Linked Data Working Group is chaired by Pieter Pauwels (pipauwel.pauwels@ugent.be) and Jakob Beetz (j.beetz@tue.nl). If you want to join the group, please send a message to the chairs.