

Certification Workshop for
BLIS Views of IFC R2.0

23-May-01 – Sophia Antipolis, France

Candidate organization: <organization name here>
Candidate application: <Application name here>

Seeks certification for:
<View name(s) here>

Testing performed by:
<Evaluator name(s) here>

Import Testing

For each test case, load the Official test case IFC file and check the evaluation items listed, based on the User Interface of the application.

Test Case 1: IFCR2_Geo_Beams_1 Evaluation Checklist

| | Item | Evaluator comments |
|---|---|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Are any beams missing? | Comments |
| 3 | Do the beams appear to be in the right locations? | Comments |
| 4 | Do they appear to be the correct size? | |
| 5 | Does app appear to use this data normally? | |

Test Case 2: IFCR2_Geo_Columns_1

| | Item | Evaluator comments |
|---|---|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Are any columns missing? | Comments |
| 3 | Do all columns appear to be in the right locations? | Comments |
| 4 | Do they appear to be the correct size? | |
| 5 | Does app appear to use this data normally? | |

Test Case 3: IFCR2_Geo_Doors_1

| | Item | Evaluator comments |
|---|---|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Are any doors missing? | Comments |
| 3 | Do all doors appear to be in the right locations? | Comments |
| 4 | Are the door swings correct for all instances | |
| 5 | Does app appear to use this data normally? | |

Test Case 4: IFCR2_Geo_FloorSlabs_1

| | Item | Evaluator comments |
|---|---|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Are any slabs missing? | Comments |
| 3 | Do all slabs appear to be in the right locations? | Comments |

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|---|--|--|
| 4 | Do all appear to be the correct shape? | |
| 5 | Does app appear to use this data normally? | |

Test Case 5: IFCR2_Geo_FloorSlabs_2

| | Item | Evaluator comments |
|---|---|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Are any slabs missing? | Comments |
| 3 | Do all slabs appear to be in the right locations? | Comments |
| 4 | Do all appear to have the right orientation? | |
| 5 | Do all appear to be the correct shape? | |
| 6 | Do all appear to be of the same thickness? | |
| 7 | Do all appear to be in the same plane? | |
| 8 | Does app appear to use this data normally? | |

Test Case 6: IFCR2_Geo_Openings_1

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Are any walls missing? | Comments |
| 3 | Are any openings missing? | Comments |
| 4 | Do all appear to be in the right location? | |
| 5 | Do all appear to be the correct size? | |
| 6 | Does app appear to use this data normally? | |

Test Case 7: IFCR2_Geo_Openings_2

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Are any walls missing? | Comments |
| 3 | Are any openings missing? | Comments |
| 4 | Do all appear to be in the right location? | |
| 5 | Do all appear to be the correct size? | |
| 6 | Do all appear to have the correct shape? | |

| | | |
|---|--|--|
| 7 | Does app appear to use this data normally? | |
|---|--|--|

Test Case 8: IFCR2_Geo_Openings_3

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Does the slab appear? | Comments |
| 3 | Are any openings missing? | Comments |
| 4 | Do all appear to be in the right location? | |
| 5 | Do all appear to be the correct size? | |
| 6 | Do all appear to have the correct shape? | |
| 7 | Does app appear to use this data normally? | |

Test Case 9: IFCR2_Geo_RoofSlabs_1

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Are any roof slabs missing? | Comments |
| 3 | Do all appear to be in the right location? | |
| 4 | Do all appear to be the correct size? | |
| 5 | Do all appear to have the correct shape? | |
| 6 | Does app appear to use this data normally? | |

Test Case 10: IFCR2_Geo_Spaces_1

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Are any spaces missing? | Comments |
| 3 | Do all appear to be in the right location? | |
| 4 | Do all appear to be the correct size? | |
| 5 | Do all appear to have the correct shape? | |
| 6 | Does app appear to use this data normally? | |

Test Case 11: IFCR2_Geo_Spaces_2

| | Item | Evaluator comments |
|---|---|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Are any spaces missing? | Comments |
| 3 | Do all slabs appear to be in the right locations? | |
| 4 | Do all appear to have the right orientation? | |
| 5 | Do all appear to be the correct shape? | |
| 6 | Do all appear to be of the same height? | |
| 7 | Do all appear to be in the same plane? | |
| 8 | Does app appear to use this data normally? | |

Test Case 12: IFCR2_Geo_Walls_1

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Do all 5 walls appear? | Comments |
| 3 | Do they appear to be "in line" ? | |
| 4 | Are all the correct size, per the dimensions in the PDF drawing? | |
| 5 | Does app appear to use this data normally? | |

Test Case 13: IFCR2_Geo_Walls_2

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Do all 16 walls appear? | Comments |
| 3 | Do they appear to be in the correct locations? | |
| 4 | Do they appear to be in the correct orientations? | |
| 5 | Are all the correct size, given the dimensions in the PDF drawing? | |
| 6 | Does app appear to use this data normally? | |

Test Case 14: IFCR2_Geo_Walls_3

| | Item | Evaluator comments |
|---|--------------------------|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Do all 16 walls appear? | Comments |
| 3 | Do they appear to be in | |

| | | |
|---|--|--|
| | the correct locations? | |
| 4 | Do they appear to be in the correct orientations? | |
| 5 | Are all the correct size, given the dimensions in the PDF drawing? | |
| 6 | Does app appear to use this data normally? | |

Test Case 15: IFCR2_Geo_Walls_4

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Do all 16 walls appear? | Comments |
| 3 | Do they appear to be in the correct locations? | |
| 4 | Do they appear to be in the correct orientations? | |
| 5 | Are all the correct size, given the dimensions in the PDF drawing? | |
| 6 | Does the multi-segment wall on the right appear correct? | |
| 7 | Does app appear to use this data normally? | |

Test Case 16: IFCR2_Geo_Walls_5

| | Item | Evaluator comments |
|---|---|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Do all 5 walls appear? | Comments |
| 3 | Do they appear to be in the correct locations? | |
| 4 | Do all appear to have the correct geometry? | |
| 5 | Do they appear to be in the correct orientations? | |
| 6 | Does app appear to use this data normally? | |

Test Case 17: IFCR2_Geo_Walls_7

| | Item | Evaluator comments |
|---|---|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Does the wall appear? | Comments |
| 3 | Does it appear to have the correct orientation? | |
| 4 | Is it tapered in plan view? | |
| 5 | Does the slot at top-center appear? | |

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|---|--|--|
| 6 | Does app appear to use this data normally? | |
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Test Case 18: IFCR2_Geo_Windows_1

| | Item | Evaluator comments |
|---|---|--------------------|
| 1 | Any errors on file load? | Comment 1 |
| 2 | Do all 8 walls and windows appear? | Comments |
| 3 | Do the windows appear to be in the correct locations? | |
| 4 | Are all of the correct height and width? | |
| 5 | Does app appear to use this data normally? | |

Test Case 19: IFCR2_Prop_Assets_1

| | Item | Evaluator comments |
|---|--|------------------------|
| 1 | Any errors on file load? | Comment 1 |
| 2 | Do all 6 asset types appear? | Comment 1 Comment 2 |
| 3 | Does the 2D geometry appear correct? | |
| 4 | Have all properties listed in the PDF been loaded? | |
| 5 | Does app appear to use this data normally? | |

Test Case 20: IFCR2_Prop_BuildingElements_1

| | Item | Evaluator comments |
|---|--|------------------------|
| 1 | Any errors on file load? | Comment 1 |
| 2 | Do all of Wall, Door, Window, Column, Beam, Floor slab and Roof slab appear? | Comment 1 Comment 2 |
| 3 | Does the geometry appear to be correct and in the right location? | |
| 4 | Have all the properties listed in the PDF been loaded? | |
| 5 | Does app appear to use this data normally? | |

Test Case 21: IFCR2_Prop_Hvac_1

| | Item | Evaluator comments |
|--|------|--------------------|
|--|------|--------------------|

| | | |
|---|---|------------------------|
| 1 | Any errors on file load? | Comment 1 |
| 2 | Do all of straight duct, flexible duct, vertical duct, air supply, variable bend, beveled junction, 'Y' junction and transition appear? | Comment 1 Comment 2 |
| 3 | Does the geometry appear to be correct and in the right location? | |
| 4 | Have all the properties listed in the PDF been loaded? | |
| 5 | Does app appear to use this data normally? | |

Test Case 22: IFCR2_Buildings_1

| | Item | Evaluator comments |
|---|---|------------------------|
| 1 | Any errors on file load? | Comment 1 |
| 2 | Do all spaces, walls, doors, windows, openings, and slabs appear? | Comment 1 Comment 2 |
| 3 | Does the geometry appear to be correct and in the right location? | |
| 4 | Are the walls of the correct size, given the dimensions in the PDF? | |
| 5 | Can dimensions for doors and windows be verified? | |
| 6 | Have the building element properties shown in the PDF been loaded? | |
| 7 | Does app appear to use this data normally? | |

Test Case 23: IFCR2_Buildings_2

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on file load? | Comments |
| 2 | Have both building floors been loaded? | Comments |
| 3 | Do all spaces, walls, doors, windows, openings, and slabs appear? | Comments |
| 4 | Does the geometry appear to be correct and in the right location in plan view? | |

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| | | |
|---|--|--|
| 5 | Does the geometry appear to be correct and in the right location in 3D view? | |
| 6 | Are the walls of the correct size, given the dimensions in the PDF? | |
| 7 | Can dimensions for doors and windows be verified? | |
| 8 | Have the building element properties shown in the PDF been loaded or calculated? (e.g. areas, project types, etc.) | |
| 9 | Does app appear to use this data normally? | |

Export Testing

Continuing from each of the import test cases from 19 through 23, the candidate must now export all the IFC objects loaded to a new file. These candidate files will be checked with three tools as follows:

1. Schema conformance checker (Ecco) – checks the candidate file for conformance with the IFC R2.0 schema
2. Concept checker (BLIS) – checks the candidate file for correct support of the concepts in the BLIS View
3. Diff checker (BLIS) – checks the candidate file against the official test case file – looking for semantic model differences.

Test Case 24: IFCR2_Prop_Assets_1

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on IFC export? | Comment 1 |
| 2 | Does the candidate file parse correctly? | (Ecco) |
| 3 | Does the file conform to the IFC R2.0 schema? | (Ecco) |
| 4 | Does the file support the BLIS view concepts correctly? | (Concept) |
| 5 | Are properties for each concept in this file populated correctly? | (Concept) |
| 6 | Do all the objects in the official file appear in the candidate file? | (Diff) |
| 7 | Are there any <u>significant</u> semantic model object differences from the official IFC file? | (Diff) |
| 8 | Can the file be loaded by other applications in the workshop? | |

Test Case 25: IFCR2_Prop_BuildingElements_1

| | Item | Evaluator comments |
|---|---|--------------------|
| 1 | Any errors on IFC export? | Comment 1 |
| 2 | Does the candidate file parse correctly? | (Ecco) |
| 3 | Does the file conform to the IFC R2.0 schema? | (Ecco) |
| 4 | Does the file support the BLIS view concepts correctly? | (Concept) |
| 5 | Are properties for each | (Concept) |

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|---|--|--------|
| | concept in this file populated correctly? | |
| 6 | Do all the objects in the official file appear in the candidate file? | (Diff) |
| 7 | Are there any <u>significant</u> semantic model object differences from the official IFC file? | (Diff) |
| 8 | Can the file be loaded by other applications in the workshop? | |

Test Case 26: IFCR2_Prop_Hvac_1

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on IFC export? | Comment 1 |
| 2 | Does the candidate file parse correctly? | (Ecco) |
| 3 | Does the file conform to the IFC R2.0 schema? | (Ecco) |
| 4 | Does the file support the BLIS view concepts correctly? | (Concept) |
| 5 | Are properties for each concept in this file populated correctly? | (Concept) |
| 6 | Do all the objects in the official file appear in the candidate file? | (Diff) |
| 7 | Are there any <u>significant</u> semantic model object differences from the official IFC file? | (Diff) |
| 8 | Can the file be loaded by other applications in the workshop? | |

Test Case 27: IFCR2_Buildings_1

| | Item | Evaluator comments |
|---|---|--------------------|
| 1 | Any errors on IFC export? | Comment 1 |
| 2 | Does the candidate file parse correctly? | (Ecco) |
| 3 | Does the file conform to the IFC R2.0 schema? | (Ecco) |
| 4 | Does the file support the BLIS view concepts correctly? | (Concept) |
| 5 | Are properties for each concept in this file populated correctly? | (Concept) |

| | | |
|---|--|--------|
| 6 | Do all the objects in the official file appear in the candidate file? | (Diff) |
| 7 | Are there any <u>significant</u> semantic model object differences from the official IFC file? | (Diff) |
| 8 | Can the file be loaded by other applications in the workshop? | |

Test Case 28: IFCR2_Buildings_2

| | Item | Evaluator comments |
|---|--|--------------------|
| 1 | Any errors on IFC export? | Comment 1 |
| 2 | Does the candidate file parse correctly? | (Ecco) |
| 3 | Does the file conform to the IFC R2.0 schema? | (Ecco) |
| 4 | Does the file support the BLIS view concepts correctly? | (Concept) |
| 5 | Are properties for each concept in this file populated correctly? | (Concept) |
| 6 | Do all the objects in the official file appear in the candidate file? | (Diff) |
| 7 | Are there any <u>significant</u> semantic model object differences from the official IFC file? | (Diff) |
| 8 | Can the file be loaded by other applications in the workshop? | |