Summary sheets

BIM GAME model files

BIM GAME I.O. #2

Table of Content

1 Introduction

These are documents developed from the files made by universities, companies during the design and construction of buildings in a BIM approach. The work of the BIM GAME team as well as the university partners will make it possible to recover the interesting data to realize these documents enriched of multiple information.

2 Folder structure

In order to organize the folder, the BIM GAME decided to create resources for each scenario described in IO #3. A teacher can of course use files for other pedagogical situations. Most of resources have been tested before by students during experimentations or competitions.

Each table describe the content of resources in different fields:

- ➢ Type of resource
- ➢ Name of resource / software
- ➢ Filename
- ➢ Details of resources

3 Summary Sheets

3.1 Scenario #1: Boiler

Type of resource	Name of resource / software	File name	Details of ressources
3D Model	Revit Tekla BIMsight IFC	Modell_Uni Wuppertal.rvt https://www.tekla.com/products/tekla-bimsight/download JH-01_scenario-tank_ifc-buw_v2.ifc	This is the first model the participants use. This model is in Revit format. Tekla BIMsight is a exchange plateform. This is the first model the participants use. This model is in IFC format.
Description	BIM Execution Plan Trainer The tank Facility Manager Engineer MEP Object Planner	JHS-01_scenario-tank_BIM-Game_BIM-Execution-Plan_v1.pdf JHS-01_scenario-tank_part-introduction-trainer_v2.pdf JHS-01_scenario-tank_part-introduction-all_v1.pdf JHS-01_scenario-tank_part-data-sheet_aostt35200.pdf JHS-01_scenario-tank_part-introduction-all_v1.pdf JHS-01_scenario-tank_part-introduction-all_v1.pdf JHS-01_scenario-tank_part-answer-MEP_v1.pdf JHS-01_scenario-tank_part-answer-OP_v1.pdf	This BIM Execution Plan is a kind of project roadmap, completing the BPM scenario and describes more precisely : project information,project organisation chart, collaboration and BIM strategy. Also, in appendix, the trainer have a criteria catalog, to evaluate the working team. Each actors play a role in this BIM process. This document describe the trainer tasks. This is the "welcoming paper", descriting the exercice of the stress test, the same for everyone. This document is product data sheet for boiler. Each actors play a role in this BIM process. This document describe the facility manager tasks. Each actors play a role in this BIM process. This document describe the facility manager tasks. Each actors play a role in this BIM process. This documentis the reponse of personn who charged of MEP. Each actors play a role in this BIM process. This documentis the reponse of Object planner.
videoconference	Teamviewer	https://www.teamviewer.com/en	The application teamviewer is used to make videoconference for the collaboration between actors
Process	BPMN BCF	global-prozess-for-stakeholder.png global-prozess-for-trainer.png	This document show the stakeholder in a recurring process what kind of rough problem awaits him in this scenario. Every scenario should also follow this process. Again, only the content should be adapted to the scenario. This document show the trainer in a recurring process which problem he has to face in this scenario. Every scenario should follow this process. Only the content should be adapted to the scenario.

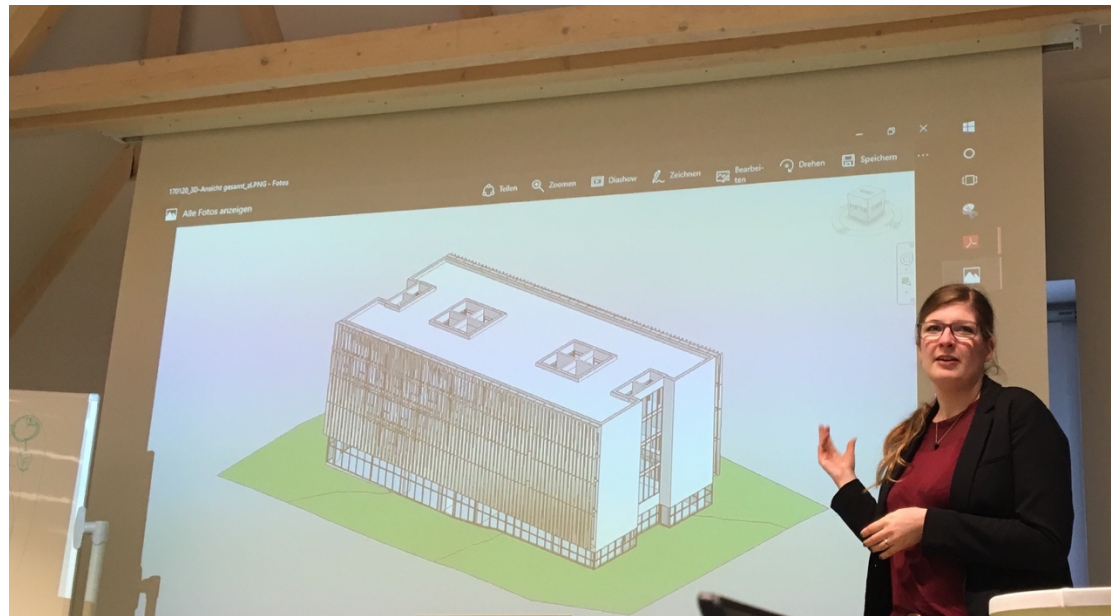|		JH_01_scenario-tank.bpm	With the modeled processus, the trainer know each step for each actors. Each participant have the scenario to understand and anticipate questions, clash in project and maybe conflicts between actors. Also, with it, the teacher knows the time of each scenario steps.
		JH_01_scenario-tank.png	This document shows the trainer an ideal typical flow for this scenario.
		Autausch Wassertank.bcfzip	This is the report of clash detecttion.
		NotesExported.bcfzip	This is the report of clash detecttion.
		Autausch Wassertank.pdf	This is the answer of the construction engineer, with the immediate measures for the FM based on BCF
Evaluation of the test	Powerpoint	BIMGame_result-test-JHS-01-Oldenburg.pptx	In this document, the scenario is develop with more details explications, per each step. Also, the trainer can see the resultants hoped. At the end of the results presentation, the trainer have some instructions to begin in the best path the stress test with different issues.

Figure 1 - Presentation of scenario - Oldenburg (Germany)

3.2 Scenario #2: Combine-Appartments

Type of resource	Name of resource / software	File name	Details of ressources
3D Model	Revit IFC	JH-02_coordination-model-object-planner_2016.rvt (according to current plan) JH-02_specialist-model-for-structural-design.rvt JH-02_scenario-combine-appartments.ifc	This is the first model the participants use. This model is in Revit format. This is model used by structural designer. This model is in Revit format. This is model used by structural designer. This model is inIFC format.
Description	Object Planner Engineer	JH-02_scenario-object-planner.pdf JH-02_scenario-strucural-engineer.pdf	Each actors play a role in this BIM process. This document describe the object planner tasks. Each actors play a role in this BIM process. This document describe the object engineer tasks.

Figure 2 - Speaking about scenario - Oldenburg (Germany)

3.3   Scenario #3: Window

Type of resource	Name of resource / software	File name	Details of ressources
3D Model	Pleiade Lexocad IFC	MOBIG12_Base.alcp maison inter.lxz PROJBIM traductgeneral.ifc	This is the first model the participants use. This model is in Pleaiade format. This is the first model the participants use. This model is in IFC format.
Description	Architect Design drafter 1 Design drafter 2 Economist Thermal engineer	W1_architect_introduction role and scenario.pdf W1_design drafter 1_introduction role and scenario.pdf W1_design drafter 2_introduction role and scenario.pdf W1_economist_introduction role and scenario.pdf W1_thermal engineer_introduction role and scenario.pdf	Each actors play a role in this BIM process. This document describe the architect tasks. Each actors play a role in this BIM process. This document describe the designer 1 tasks. Each actors play a role in this BIM process. This document describe the designer 2 tasks. Each actors play a role in this BIM process. This document describe the deconomist tasks. Each actors play a role in this BIM process. This document describe the thermal engineer tasks.
videoconference	Teamviewer	https://www.teamviewer.com/en	The application teamviewer is used to make videoconference for the collaboration between actors
Process	BPMN BCF	window scenario BPMN2.pdf window problem.bcfzip	With the modeled processus, you know each step for each actors. Each participant have the scenario to understand and anticipate questions, clash in project and maybe conflicts between actors. Also, with it, the teacher knows the time of each scenario steps. This is the report of clash detecttion.

Figure 3 - Speaking about window scenario - Mouchard (France)

3.4 Scenario #4: MUE (University House of Education)

Type of resource	Name of resource / software	File name	Details of ressources
3D Model	Revit Sketch Up	Revit_template_Lego.rvt Base module + environment urban.skp Base module.skp	This is the first model the participants use. This model is in Revit format. This is another model in Sketch Up format with environment This is another model in Sketch Up format
Description		181109_BEP_student_competition Competition-program.pdf HOW-TO-competition.pdf Presentation-Team-1.pptx Presentation-Team-2.pptx Presentation-Team-3.pptx Stress session framework.pdf Team_composition.pdf	This document describes the university House of Education, BEP, Requirements, etc. Planning of the competition (Teams, etc…) This document is a guide for teachers and students (bim game platform) Team presentations as example Team presentations as example Team presentations as example This an example of Pedagogical framework This sheet describes the composition of teams

Figure 4 - Explanation for MUE scenario - Besançon (France)

Scenario #5: Building Permit

Type of resource	Name of resource / software	File name	Details of ressources
3D Model	Sketchup	M15_before.skp M15_after.skp	This is the first model the participants use. This model is in SkekchUp format. This is the result.
Plans	context	M15_plan.pdf	This is a 2D plan
Description of	Trainer Actors sheet Roles for competition	BPMN.png BPMN.bpm Sheet_architect.doc Sheet_client.doc Sheet_engineer.doc Sheet_phase_1_client doc Sheet_phase_2_Administration doc Sheet_phase_2_Architect.doc Sheet_phase_3_Architect.doc Sheet1.odt Sheet2.odt Rôles_skills_(French)	This is BPMN diagram for the scenario Native BPMN file With the modeled process, you know each step for each actors. Each participant have the scenario to understand and anticipate questions, clash in project and maybe conflicts between actors. Also, with it, the teacher knows the time of each scenario steps. Before begin the BIM process, differents actors receive the welcoming paper. This paper contain issues and goals of thus process. This is a sheet for the roles
videoconference		https://play2.bimgame.eu	Rocketchat is a connected application who can be used to make video conference and chat. This app use the same directory as the platform "nextcloud".

Figure 5 - Preparation in LIRL - Brussels (Belgium)

3.5   Scenario #6: Test on distant sites

Type of resource	Name of resource / software	File name	Details of ressources
3D Model	IFC	ULG_M23_LIRLmodel.ifc	This is the first model the participants use. This model is in IFC format.
Point cloud	For ARCHICAD (e57 format)	ULG_M23_LIRLAGORA_5CM.e57	This is the points cloud in « E57 » format. This represent the existing situation. Check wich format you software can read.
	For REVIT (rcp format)	ULG_M23_LIRLAGORA_5CM.rcp	This is the points cloud in « Recap » format. This represent the existing situation. Check wich format you software can read.
	For AECOSIM (pod format)	ULG_M23_LIRLAGORA_5CM.pod	This is the points cloud in « Pod » format. This represent the existing situation. Check wich format you software can read.
	Play2bimgame	https://play2.bimgame.eu	This is the collaborative plateform where participant can share their model and documents.
Description of	Actors sheet	ULG_M23_sheet.pdf	Each actors play a role in this BIM process, descripted in this document. Share it with the participants.
	Call for competition	ULG_M23_sheet.pdf	
Clash detection	BIM Vision	BIM Vision Online Setup.exe	BIM Vision is a checker software who can make detection clash between different models.
videoconference	Rocketchat	https://play2.bimgame.eu	Rocketchat is a connected application who can be used to make video conference and chat. This app use the same directory as the platform "nextcloud".
chat	Rocketchat	https://play2.bimgame.eu	Rocketchat is a connected application who can be used to make video conference and chat. This app use the same directory as the platform "nextcloud".
Process	BPMN	ULG_M23_BIM GAME scenario.png	With the modeled processus, you know each step for each actors. Each participant have the scenario to understand and anticipate questions, clash in project and maybe conflicts between actors. Also, with it, the teacher knows the time of each scenario steps.

3.6   Scenario #7: Circularity and reuse

Type of resource	Name of resource / software	File name	Details of ressources
3D Model	IFC	ULG_M24_LIRLmodel.ifc	This is the first model the participants use
Point cloud	For ARCHICAD (e57 format)	ULG_M24_LIRLAGORA_5CM.e57	This is the points cloud in « E57 » format. This represent the existing situation. Check wich format you software can read.
	For REVIT (rcp format)	ULG_M24_LIRLAGORA_5CM.rcp	This is the points cloud in « Recap » format. This represent the existing situation. Check wich format you software can read.
	For AECOSIM (pod format)	ULG_M24_LIRLAGORA_5CM.pod	This is the points cloud in « Pod » format. This represent the existing situation. Check wich format you software can read.
	Play2bimgame	https://play2.bimgame.eu	This is the collaborative plateform where participant can share their model and documents.
Description of	Actors sheet Call for competition	ULG_M24_sheet.pdf	Each actors play a role in this BIM process, descripted in this document. Share it with the participants.
Clash detection	BIM Vision	BIM Vision Online Setup.exe	BIM Vision is a checker software who can make detection clash between different models.
videoconference	Rocketchat	https://play2.bimgame.eu	Rocketchat is a connected application who can be used to make video conference and chat. This app use the same directory as the platform "nextcloud".
chat	Rocketchat	https://play2.bimgame.eu	Rocketchat is a connected application who can be used to make video conference and chat. This app use the same directory as the platform "nextcloud".
Process	BPMN	ULG_M24_BIM GAME scenario.png	With the modeled processus, you know each step for each actors. Each participant have the scenario to understand and anticipate questions, clash in project and maybe conflicts between actors. Also, with it, the teacher knows the time of each scenario steps.
Catalog of product	Rotor DC	https://rotordc.com	Rotor Deconstruct is belgian firm who work with reuse materials. On their website, you can find all reuse materials, with some informations, descriptions and dimensions. These elements can be used for this scenerio.
Evaluation of collaboration	BIM Manager sheet	ULG_M24_BIMMANAGER report.pdf	In this scenario, the BIM Manager make a report on collaboration for each step.
Evaluation of the test	Online survey of the jury / theme	https://www.wooclap.com/	Wooclap is a collaborative plateform. In this scenario, you can use wooclap to reward the teams on differents topics like sustainable, circularity, collaboration, …

3.7 Scenario #8: Circularity and reuse

Type of resource	Name of resource / software	File name	Details of ressources
3D Model	IFC	ULG_M24_LIRLmodel.ifc	This is the first model the participants use
Point cloud	For ARCHICAD (e57 format) For REVIT (rcp format) For AECOSIM (pod format) Play2bimgame	ULG_M24_LIRLAGORA_5CM.e57 ULG_M24_LIRLAGORA_5CM.rcp ULG_M24_LIRLAGORA_5CM.pod https://play2.bimgame.eu	This is the points cloud in « E57 » format. This represent the existing situation. Check wich format you software can read. This is the points cloud in « Recap » format. This represent the existing situation. Check wich format you software can read. This is the points cloud in « Pod » format. This represent the existing situation. Check wich format you software can read. This is the collaborative plateform where participant can share their model and documents.
Description of	Actors sheet Call for competition	ULG_M24_sheet.pdf	Each actors play a role in this BIM process, descripted in this document. Share it with the participants.
Clash detection	BIM Vision	BIM Vision Online Setup.exe	BIM Vision is a checker software who can make detection clash between different models.
videoconference	Rocketchat	https://play2.bimgame.eu	Rocketchat is a connected application who can be used to make video conference and chat. This app use the same directory as the platform "nextcloud".
chat	Rocketchat	https://play2.bimgame.eu	Rocketchat is a connected application who can be used to make video conference and chat. This app use the same directory as the platform "nextcloud".
Process	BPMN	ULG_M24_BIM GAME scenario.png	With the modeled processus, you know each step for each actors. Each participant have the scenario to understand and anticipate questions, clash in project and maybe conflicts between actors. Also, with it, the teacher knows the time of each scenario steps.
Catalog of product	Rotor DC	https://rotordc.com	Rotor Deconstruct is belgian firm who work with reuse materials. On their website, you can find all reuse materials, with some informations, descriptions and dimensions. These elements can be used for this scenerio.
Evaluation of the test	Online survey of the jury / theme	ULG_M24_BIMMANAGER report.pdf	In this scenario, the BIM Manager make a report on collaboration for each step.

3.8 Scenario #9: Errors in model

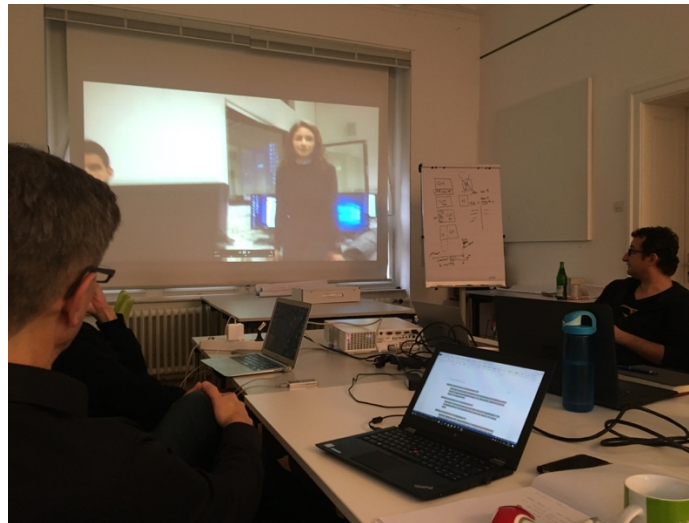| Type of resource	Name of resource / software	Filename	Details of ressources
3D Model	Revit	Modell.rvt	This is the first model the participants use
Description	Architect 1 Architect 2 BIM Coordinator Economist Client Entry test	A1_task_introduction_architect A2_task_introduction_architect BC_task_introduction_BIM Coordinator E_task_introduction_economist Letter_clients changes to model scenario_errors in model_entry test	Each actors play a role in this BIM process. This document describe the architect1 tasks. Each actors play a role in this BIM process. This document describe the architect1 tasks. Each actors play a role in this BIM process. This document describe the BIM Coordinator tasks. Each actors play a role in this BIM process. This document describe the economist tasks. Each actors play a role in this BIM process. This document describe the client.
Process	BPMN	171113_BPMN_ScenarioII_W2	This is the BPMN diagram for the scenario

Figure 6 - Feedbacks from students - Wuppertal (Germany)

3.9 Scenario #10: Duplo

Type of resource	Name of resource / software	Filename	Details of ressources
3D Model	Revit Model of duplo brick	Duplohaus.rvt BUW_Duplostein.rfa	This is the first model the participants use This is the model of duplo brick.
Description	Duplo Handling Revit Team 1 Team 2 Team 3 Team 4	180830_E_Duplo-Modell-Handling_zl 180830_E_Introduction_DUPLO_Team1_pü 180903_E_Lieferbestätigung_Team1_pü 180830_E_Introduction_DUPLO_Team2_pü 180903_E_Lieferbestätigung_Team2_pü 180830_E_Introduction_DUPLO_Team3_pü 180903_E_Lieferbestätigung_Team3_pü 180830_E_Introduction_DUPLO_Team4_pü 180903_E_Lieferbestätigung_Team4_pü	These are welcoming letters for each team with explanation for the scenario.

Figure 7 - One model from a team with RFID stickers - Wuppertal (Germany)