

quanticdream

HEAVY *RAIN*

A CHALLENGING
PRODUCTION



CHARLES *COUTIER*
PRODUCER

QUANTIC DREAM

- Established in 1997 in Paris, France;
- 100 full-time employees;
- Leading French independent studio;
- Unique Infrastructure with in-house Motion Capture set, 3D scanner and sound studio;



quanticdream

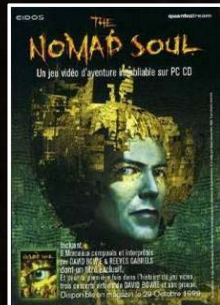
QUANTIC DREAM

« Developing innovative experiences based on emotion »

Worked with *EIDOS*, *VIVENDI*, *MICROSOFT*, *ATARI*, *SONY*;

Created the first virtual actor with *David Bowie* in 1999;

Proprietary technologies and tools since day 1;



quanticdream

HEAVY RAIN

UNIQUE FEATURES



HEAVY RAIN UNIQUE FEATURES



Genre: A film noir thriller in *Interactive Drama* format;

Platform: Exclusive PLAYSTATION 3;

Localization: 16 languages

Release: February 2010;

Critics: 90,1% based on 420 reviews

Sales: 1.4 million



HEAVY RAIN UNIQUE FEATURES

A JOURNEY

“Journey” Vs “Challenge” :

- *Games are usually based on challenges*
(Beat a boss, survive, solve puzzles, etc.)
- *There is No Challenge in HR*
(No game overs, nothing hard to do, etc.)
- *Journey : The story and the way the player sees it*



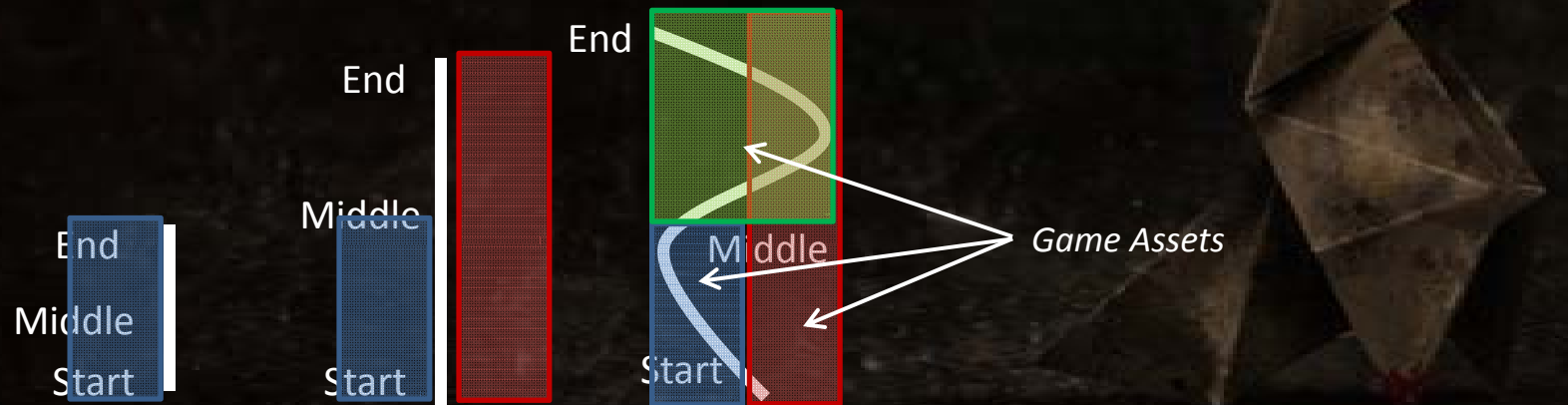
HEAVY RAIN UNIQUE FEATURES

THE JOURNEY

Bending Stories

The story is a rubber band the player can deform

The player is able to create different variations on the story

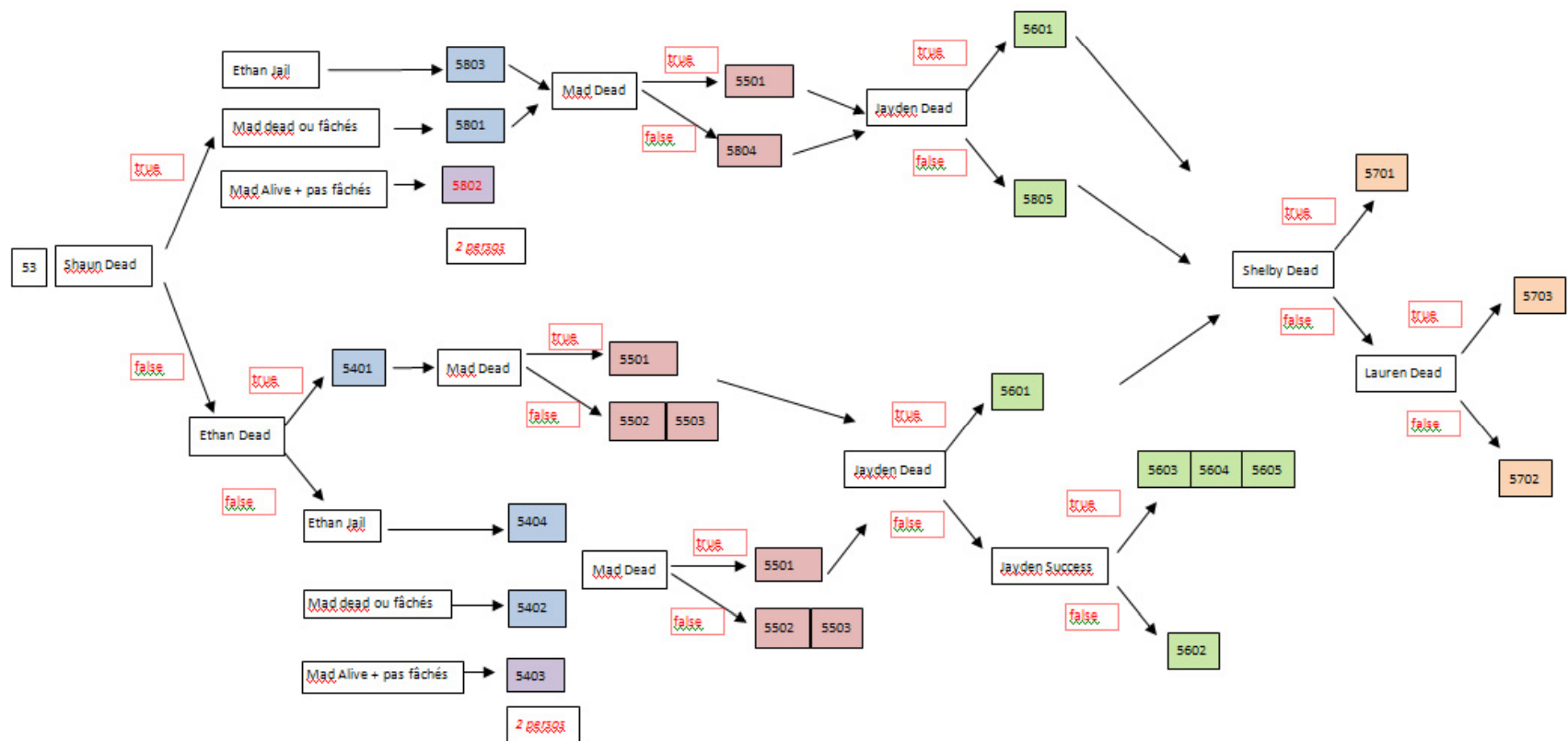


➡ To produce the assets not for one path, but for all the possible paths

HEAVY RAIN CHARACTERISTICS

THE JOURNEY

HEAVY RAIN EPILOGS

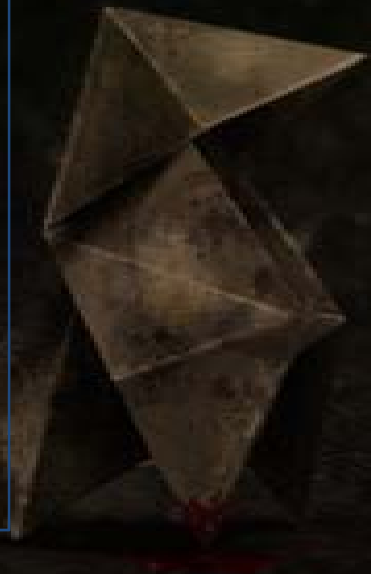


HEAVY RAIN UNIQUE FEATURES

THE JOURNEY

Requires a huge amount of assets !

- 2 000 pages of script;
- 60 unique sets;
- 4 playable, 20 secondary characters
- 60+ additional characters & « crowd »
- 170 days of mocap shooting (3 movies)
- 30 000 unique animations;



HEAVY RAIN UNIQUE FEATURES

A CREATIVE-DRIVEN PROJECT

- *Game Design Driven*
- *Personalised Creative Vision*
- *David Cage*



HEAVY RAIN UNIQUE FEATURES

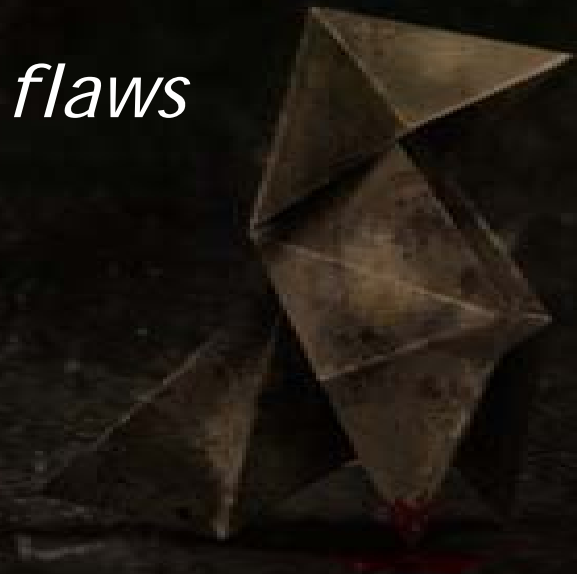
Artistic Direction is key:

It makes the experience Good



... or with flaws

LAST QUARTER OF
FAHRENHEIT
(INDIGO PROPHECY)



With the same Production value,
if the Creative direction is great, the experience is flawless.

HEAVY RAIN UNIQUE FEATURES

TO SUM-UP, Two issues to deal with :

- A Data Consuming Production
- A Creative Driven Project

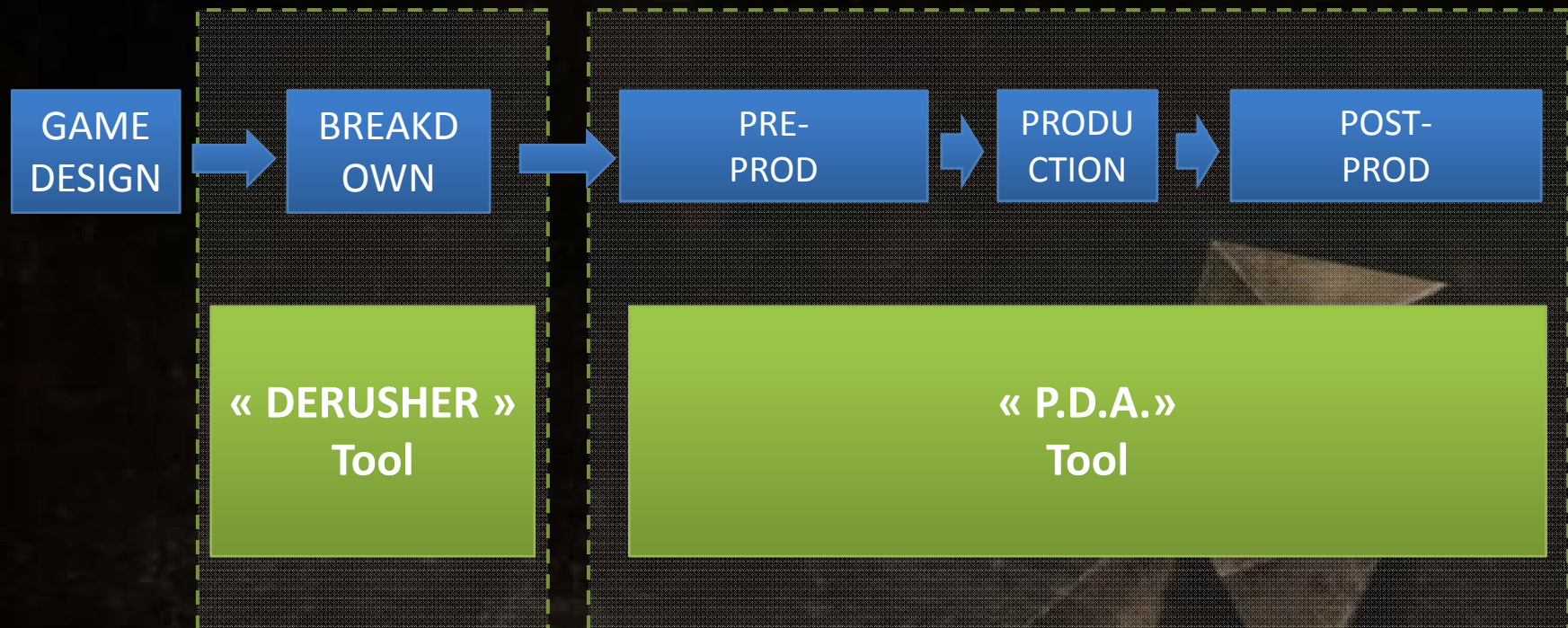


HEAVY RAIN

ASSETS PRODUCTION



ASSETS PRODUCTION PRODUCTION TOOLS



ASSETS PRODUCTION PRODUCTION TOOLS

The « DERUSHER » :

- Breakdown of the Game Design
 - Game Structure
 - Graphic Assets (location sets, characters, sounds, etc.)
 - Mocap shooting lists
 - Localisation
- Naming convention
- Place-holder files creation
- Data source management

Every single data used in the game must be « derushed », means identified in this tool



ASSETS PRODUCTION

The screenshot displays the DataSafe software interface for asset production. The interface is divided into several panels:

- Left Panel (Derush):** A tree view showing asset categories: AREA, FX, SCENE, DIALOG, SET, SHOOTING, CHARACTER, RECORD, ANIM, ANIM GROUP, PROPS, and SOUND.
- Main Panel:** A list of assets with columns for ID and Nomenclature. The list includes assets like HR_1301_INTRO_WAKEUP_CT_MAD_SIT, HR_1301_RESET_OBJECT_CT_COFFEETABLE01_STD, and HR_1301_RESET_OBJECT_CT_COFFEETABLE02_STD.
- Right Panel (Metadata):** Fields for Scene (1301), Sequence, Action Group, Type, Character, Props, Shooting, and State.
- ANIMATION Dialog:** A detailed view of an asset's animation properties. It includes fields for Nomenclature, Scene, Area, Set, Sequence, Action Group, Type, Character, Appearance, Object, Props, Action, and Description. It also has sections for 'Details' (Absolute/Relative, Keyframe Only/Cross Scene Animation) and 'Linked Anim'/'Linked Fx'/'Linked Sound'.

File Derush Server Misc ?

Base HeavyRain - DAC



AREA



FX



SCENE



DIALOG



SET



HOOTIN



CHARACTERISTICS



RECORD



ANIM



IM GRO




PROPS



SOUND

New	Edit	Copy	Cut
-----	------	------	-----

	ID	Nomenclature
---	----	--------------

ANIMATION

Required

Nomenclature : HR_1301_RESET_OBJECT_CT_COFFEETABLE02_STD

Scene : 1301

Area : MADISONHOUSE

Set : Madison House

Sequence : RESET

Action Group : OBJECT

Type : CT

Character :

Appearance :

Object : coffe table in teh living.

Props :

Action : STD

Description : madison wakes up and sits on the sofa

Set

Set

Set

Up

Down

Details

☒ Absolute
☐ Keyframe Only

☐ Relative
☐ Cross Scene Animation

Detailed Location :

Linked Anim :

- HR_1301_RESET_OBJECT_CT_COFFEETABLE01_STD
- HR_1301_RESET_OBJECT_CT_COFFEETABLE03_STD
- HR_1301_RESET_OBJECT_CT_DESKITEMS_STD
- HD_1301_RESET_OBJECT_CT_DININGITEMS_STD

Linked Fx :

Linked Sound :

Add

Remove

Add

Remove

Edit >>

OK

Cancel

 PDA PDA

ASSETS PRODUCTION PRODUCTION TOOLS

The « PRODUCTION DATA ASSISTANT » :

- Task /Asset Allocation
- Production follow-up
- Validation
- File Transfer
- Data source management
- Database export



ASSETS PRODUCTION

DataSafe

File Derush Server Misc ?

PDA

Base HeavyRain - CBR

AREA PROPS
SCENE SOUND
SFT FX
CHARACTER DIALOG
ANIM SHOOTING
ANIM GROUP RECORD

Name :
Label :
Area :
Version :
Step :
User :

Filter
Show All

Global PDA
Department PDA
User PDA

☐ Deferred
☐ Export

Delete History Check Data Comment Validate
Affect/Modify Edit Checklist Freeze Derush Info Invalidate

Pending (25) Not Started (1) Work In Progress (1) Waiting Validation (1) Done (93)

Nomenclature	Last Step	Next Step	Deputy	Priority	Duration
HR_LCLANDHOUSE_EXT	OUTSOURCING	ICING	FGR	A	0
HR_MALL_INT	OUTSOURCING	ICING	FGR	A	0
HR_RESERVOIR_EXT	PLACE HOLDER	OUTSOURCING	FGR	A	0
HR_ETHANHOUSE_INT	OUTSOURCING	ICING	FGR	A	0
HR_PSYOFFICE_INT	OUTSOURCING	ICING	FGR	A	10
HR_DIEGODISTRCT_EXT	PLACE HOLDER	OUTSOURCING	FGR	A	0
HR_DIEGOHOUSE_INT	PLACE HOLDER	OUTSOURCING	FGR	A	0
HR_LEXINGTON_INT	OUTSOURCING	ICING	FGR	A	0
HR_LAURENDIS					
HR_ETHANBEFO					
HR_ETHANBEFO					

AFFECT TASK

Nomenclature : HR_MALL_INT
Duration : 0 Day(s)
Priority : A
Step : ICING ☐ Modify Step
Deputy : FGR
User :
Sub Users :
Add
Remove
Comment
☐ Deferred Mode
OK Cancel

DATA HISTORY

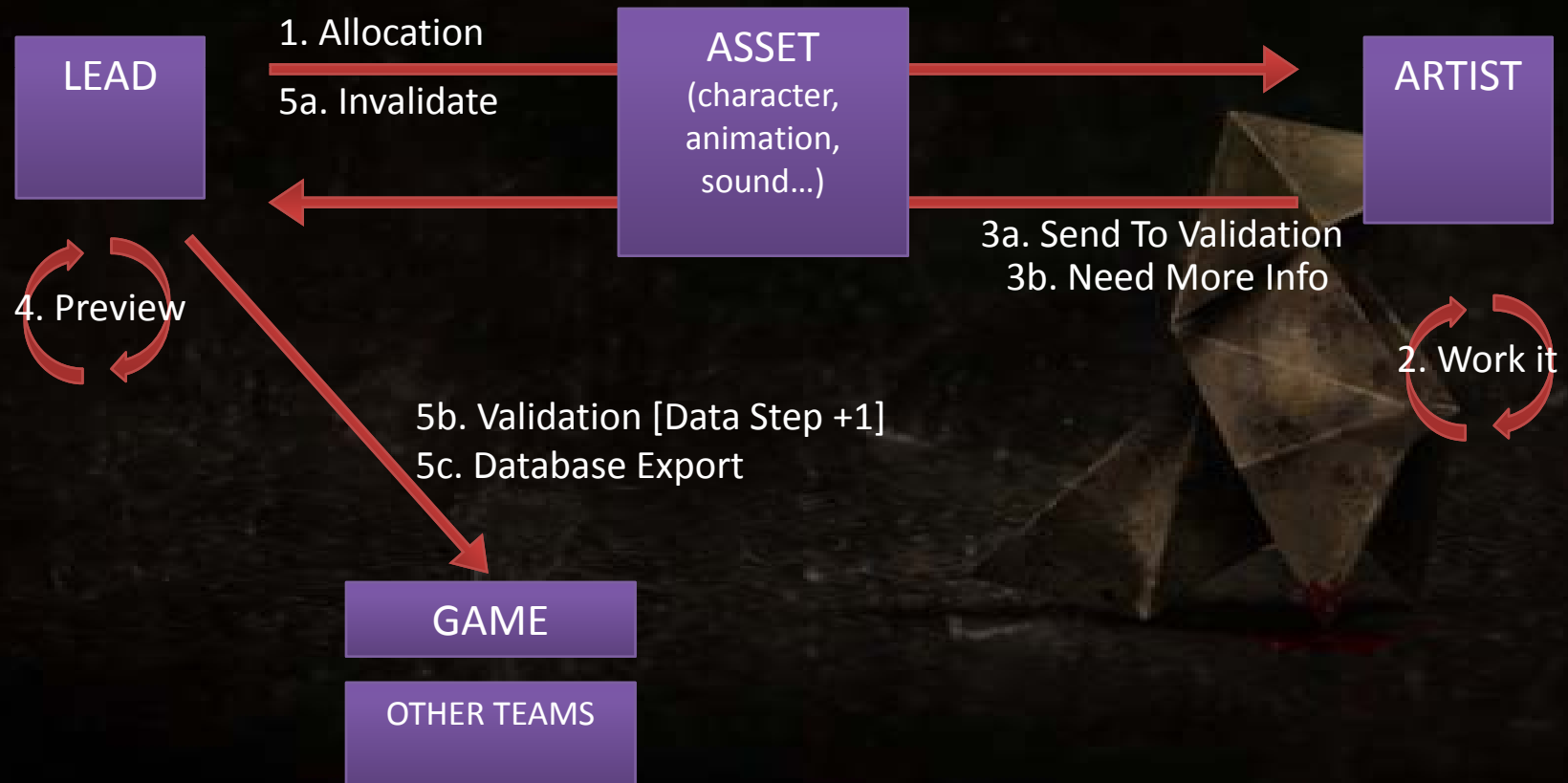
Required
Nomenclature : HR_MALL_INT
Description : Commercial Center, saturday afternoon, summer, sunny

Step	User	Status	Priority	Start Date	Duration	Remai...	Valid Date	Valid User
ICING	CBR	Pending	A	2010-01-06 1 0	0			
ICING	FGR	Done	A	2009-12-21 1 0	0		2009-12-22 13:59:45	FGR
ICING	CBR	Done	A	2009-12-18 1 0	0		2009-12-18 15:44:35	CBR
ICING	AMO	Done	A	2009-11-27 1 0	0		2009-11-27 14:30:51	CBR
ICING	FGR	Done	A	2009-11-24 1 0	0		2009-11-24 16:26:14	FGR
ICING	FGR	Done	A	2009-11-18 1 0	0		2009-11-18 20:08:48	FGR
ICING	FGR	Done	A	2009-11-17 1 0	0		2009-11-17 16:23:45	FGR
ICING	JOB	Done	A	2009-11-13 1 0	0		2009-11-13 18:28:46	CBR
ICING	JOB	Done	A	2009-11-12 1 0	0		2009-11-12 19:42:15	FGR
ICING	CBR	Done	A	2009-10-29 1 0	0		2009-11-03 13:22:16	CBR
ICING	CBR	Done	A	2009-10-27 1 0	0		2009-10-27 20:24:36	CBR

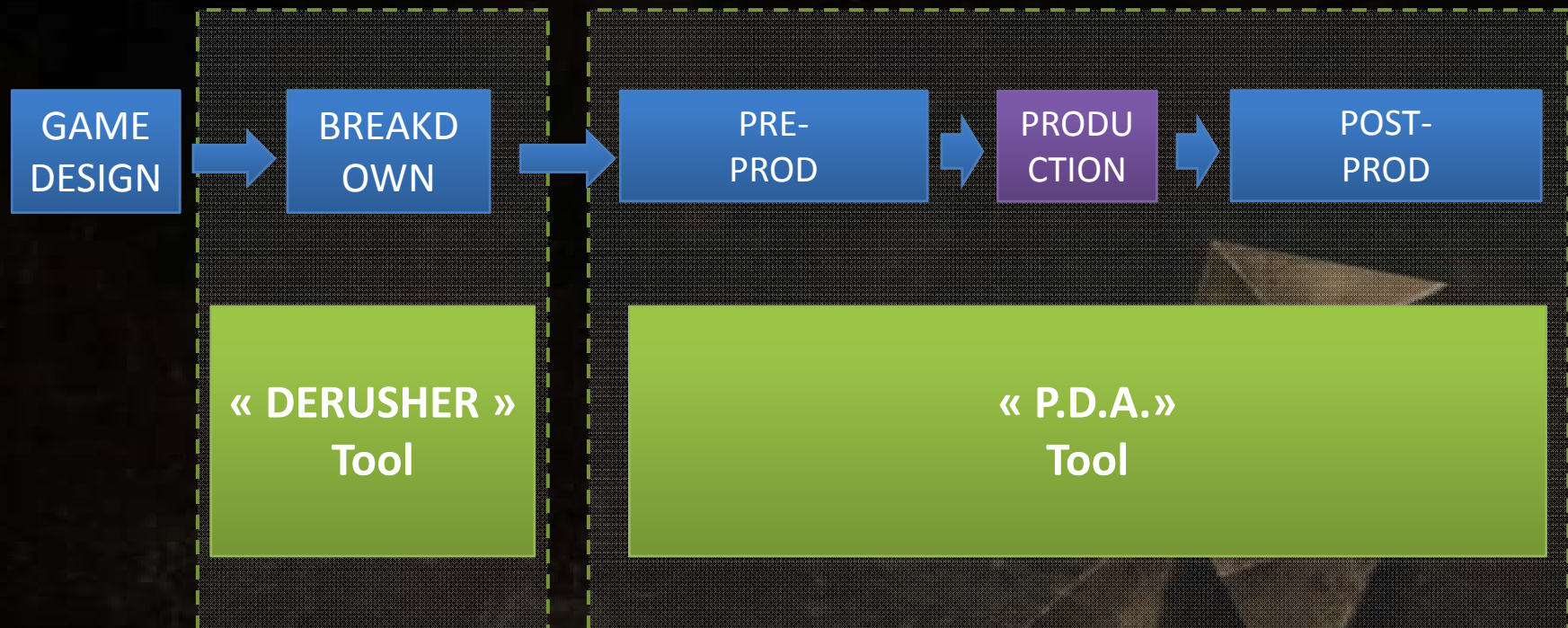
Stop History
Get Version
OK

ASSETS PRODUCTION PRODUCTION TOOLS

The « P.D.A. » :



ASSETS PRODUCTION PRODUCTION TOOLS



ASSETS PRODUCTION OUTSOURCING PROCESS

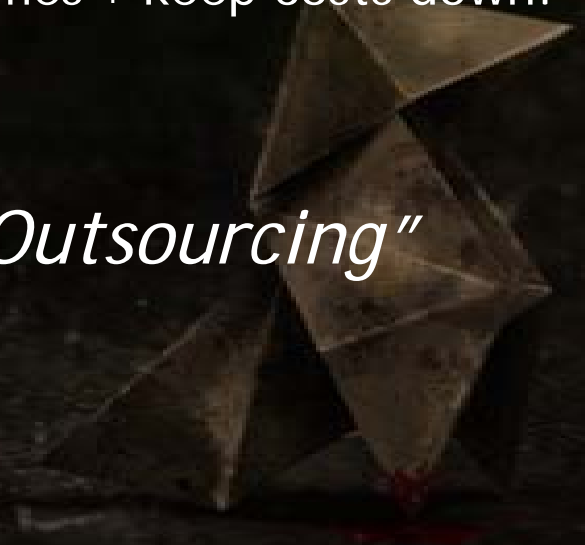
Before Starting

- *“We absolutely need Outsourcing”*

A solution to reduce the production times + keep costs down: 450 m/m for 3D

- *“BUT people struggle with Outsourcing”*

- Running Late
- Poor quality
- “Robotic” production
- Distance and language issues...



ASSETS PRODUCTION OUTSOURCING PROCESS

What We Did


1. Potential Partners Evaluation

- 18 studios contacted;
- 10 offered to do a large test;
- 4 actually delivered;
- 2 pre-selected;
- 1 made 80% of the outsourced assets.



ASSETS PRODUCTION OUTSOURCING PROCESS

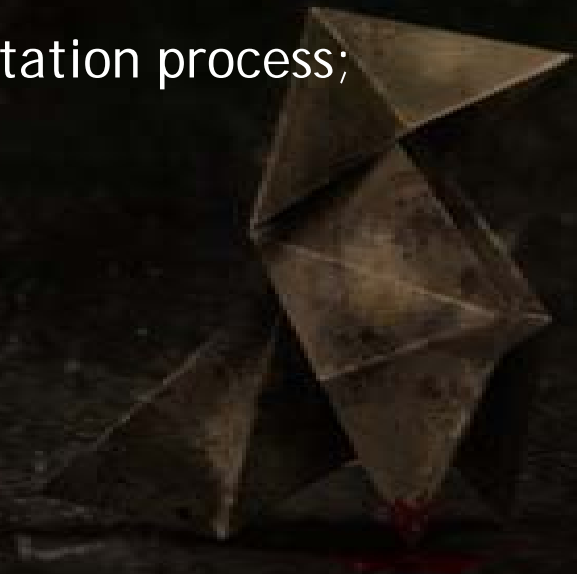
2. Training and Team Building

- Ramp up is crucial;
 - The more time we spend to train external artists, the better result is;
 - Try to make external artists feel really part of the project;
 - Make the outsourcing vendor your partner, share your enthusiasm regularly, and with as much staff as possible.
- 

ASSETS PRODUCTION OUTSOURCING PROCESS

3. Detailed Preparation

- Step by step, highly detailed documentation process;
- “No questions” objective;
- The “Outsourcing Pack” creation



ASSETS PRODUCTION OUTSOURCING PROCESS

4. Communication procedures

- Dedicated in-house Outsourcing Manager and Artists
- Close follow-up, continuous communication (weekly phone calls...)
- Strict delivery and feedback procedures (bug report...)
- A visit on site every 3 months.



ASSETS PRODUCTION OUTSOURCING PROCESS

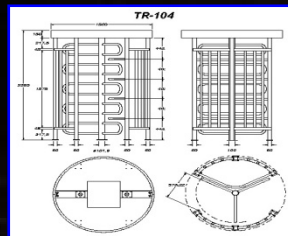


ASSETS PRODUCTION OUTSOURCING PROCESS

Outsourcing Pack Content



Initial sketches and
reference material



Detailed blue
prints



2D ambient design



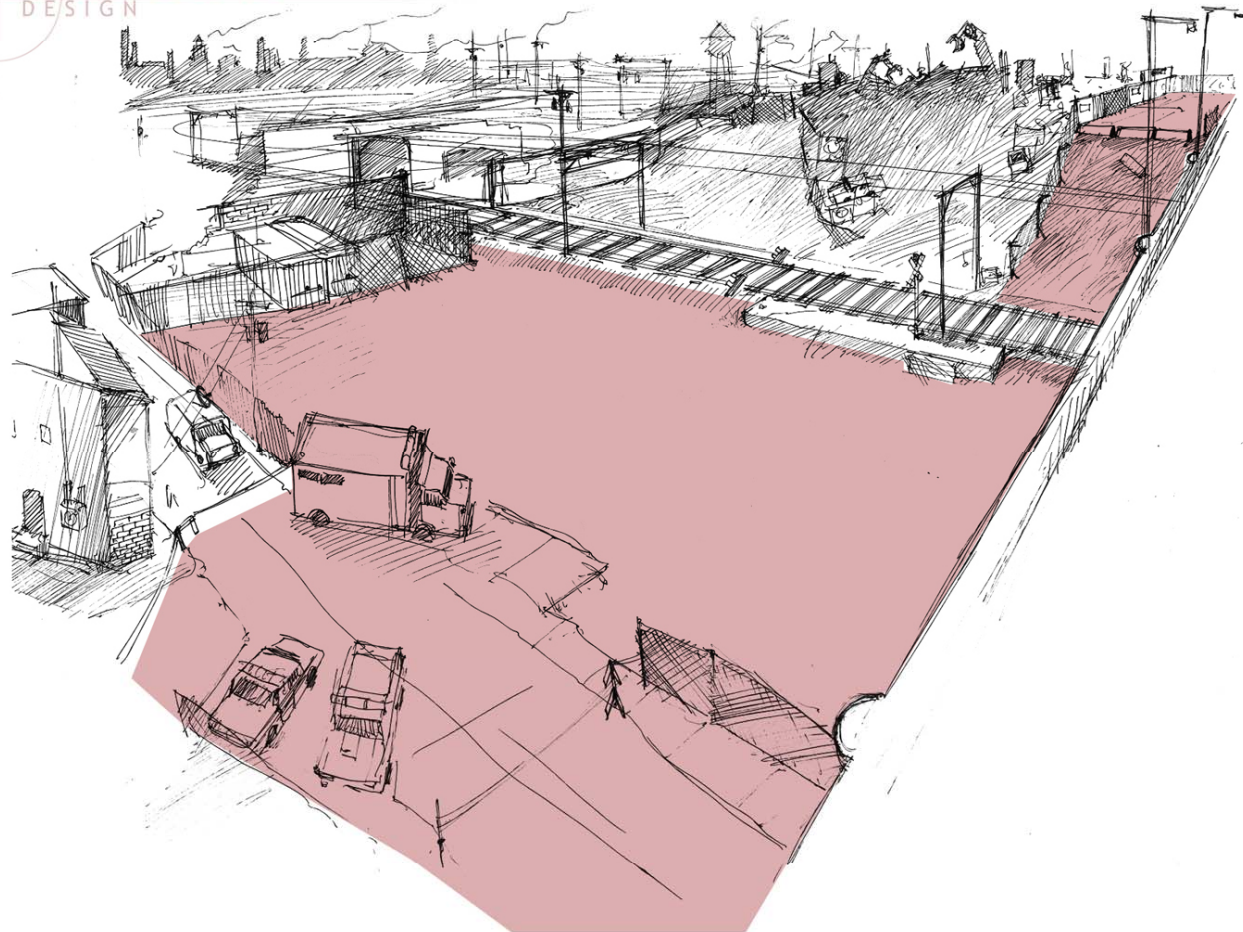
Rough 3D models

- Design / Moodboards : general aspect, mood of the set, Image references
- Blueprints : architect work
- Artworks : ambiance
- 3D place-holder mesh : Maya files, very low poly, untextured
- Item Boards : image references of the main objects
- Assets List : detailed and exhaustive list of all the objects contained in the set.

Design First Draft

HEAVY RAIN
SET DESIGN
BLUEPRINTS

CRIME SCENE
DESIGN



Design / Mood Board



Moodboard

HEAVY RAIN CRIME SCENE
SET DESIGN
MOOD BOARD



Second Draft

HEAVY RAIN
SET DESIGN
MOOD BOARD
CRIME SCENE
DESIGN



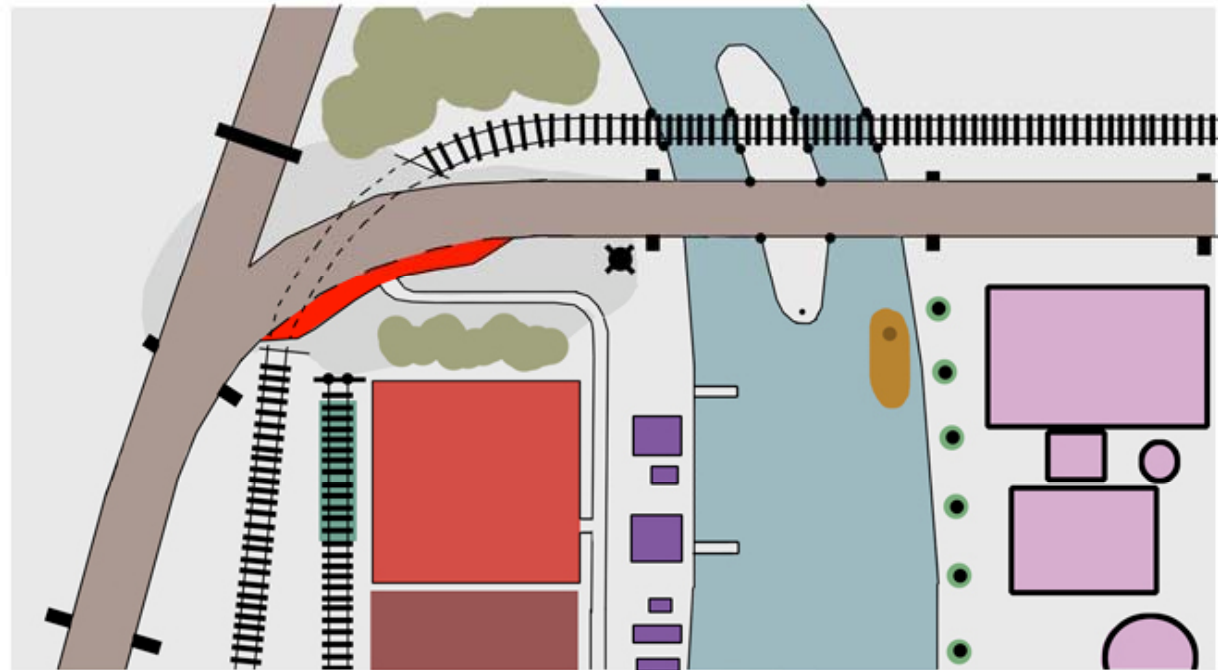
Schematic Blueprint

HEAVY RAIN
SET DESIGN
BLUEPRINTS

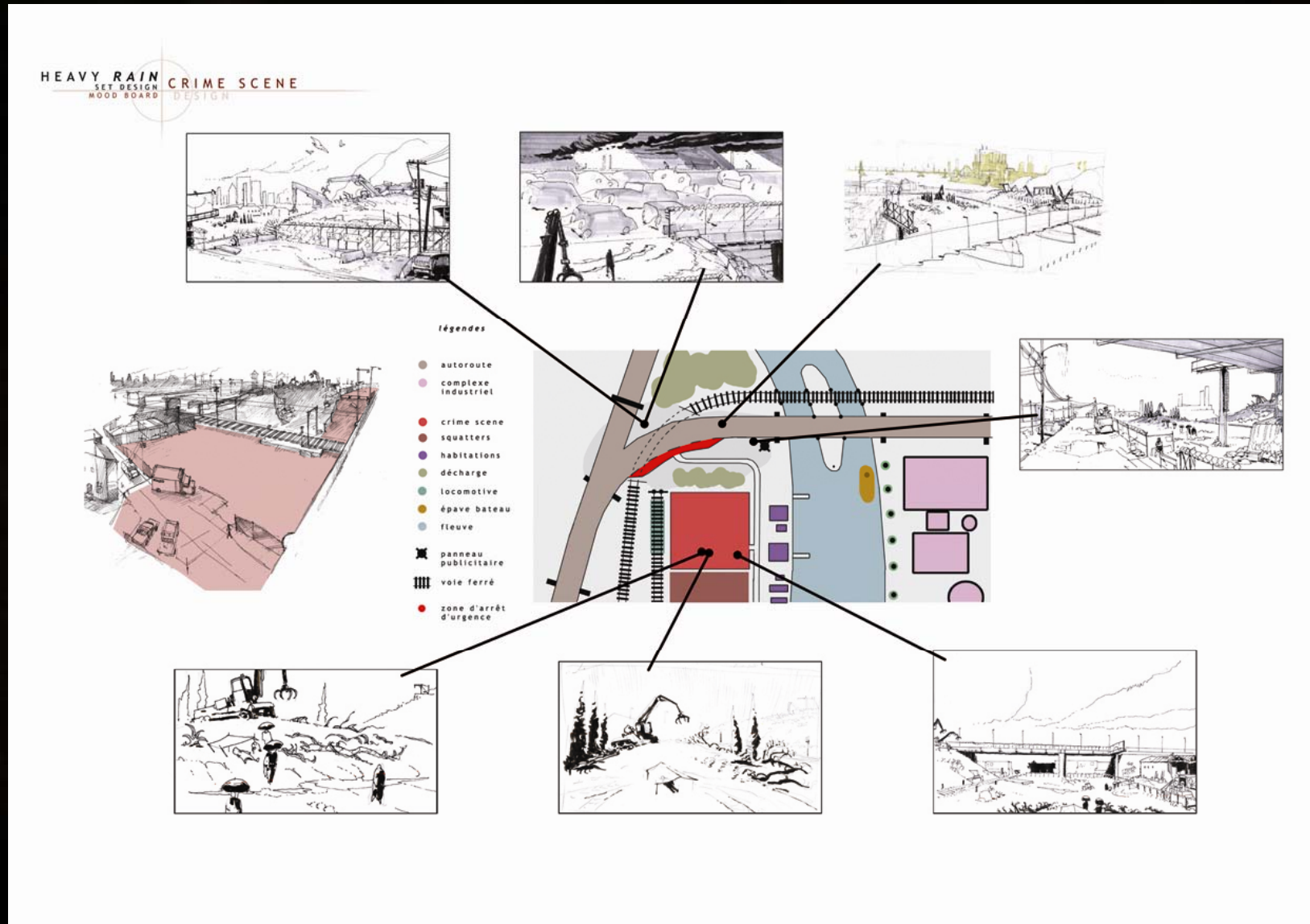
CRIME SCENE
DESIGN

légendes

-  autoroute
-  complexe industriel
-  crime scene
-  squatters
-  habitations
-  décharge
-  locomotive
-  épave bateau
-  fleuve
-  panneau publicitaire
-  voie ferré
-  zone d'arrêt d'urgence



Schematic Blueprint



Concept Art



Concept Art



Blueprint

HEAVY RAIN
SET DESIGN
BLUEPRINT

ETHAN MARS' HOUSE - AFTER : FIRST FLOOR

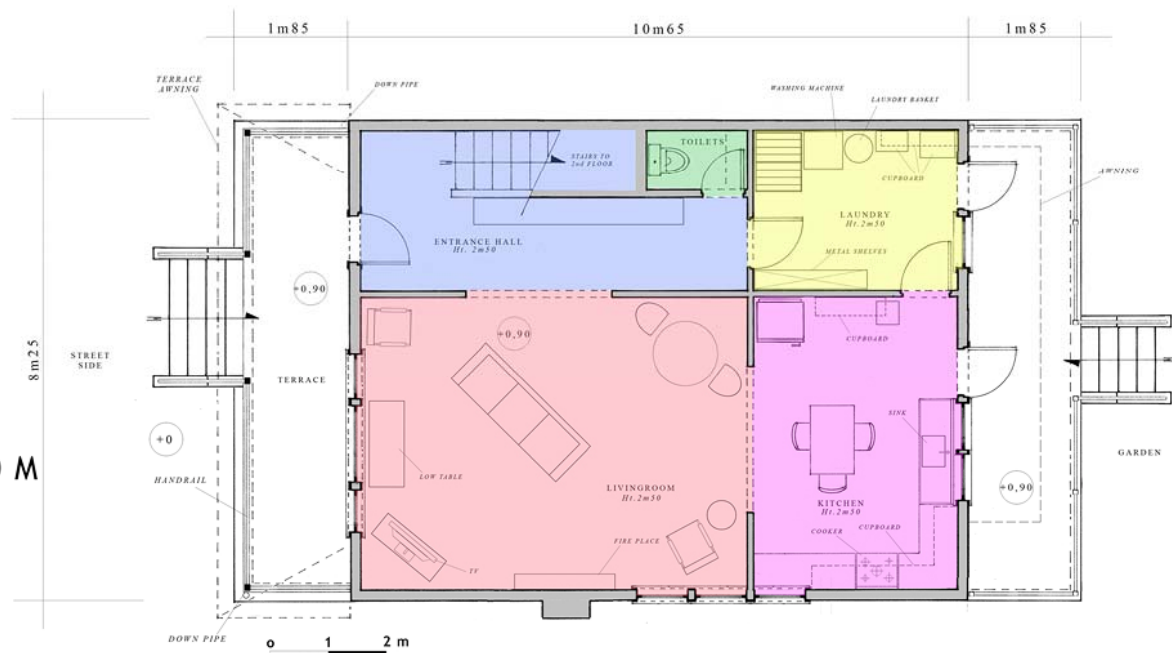
ENTRANCE

TOILETS

LAUNDRY

LIVING ROOM

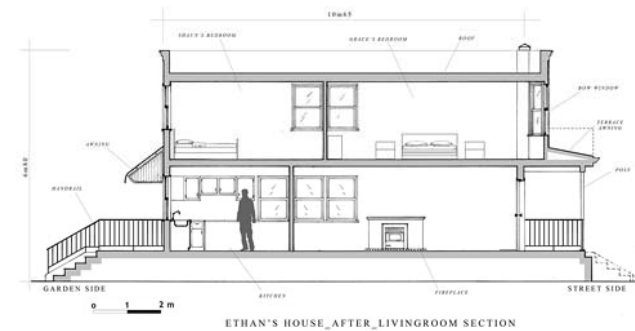
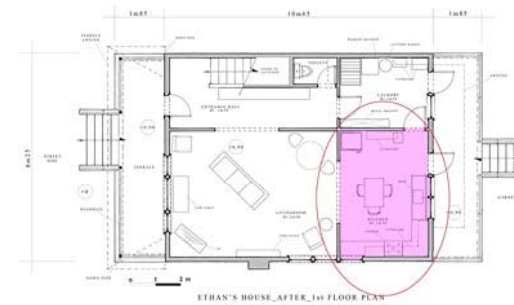
KITCHEN



ETHAN'S HOUSE_AFTER_1st FLOOR PLAN

Moodboard & Placeholder

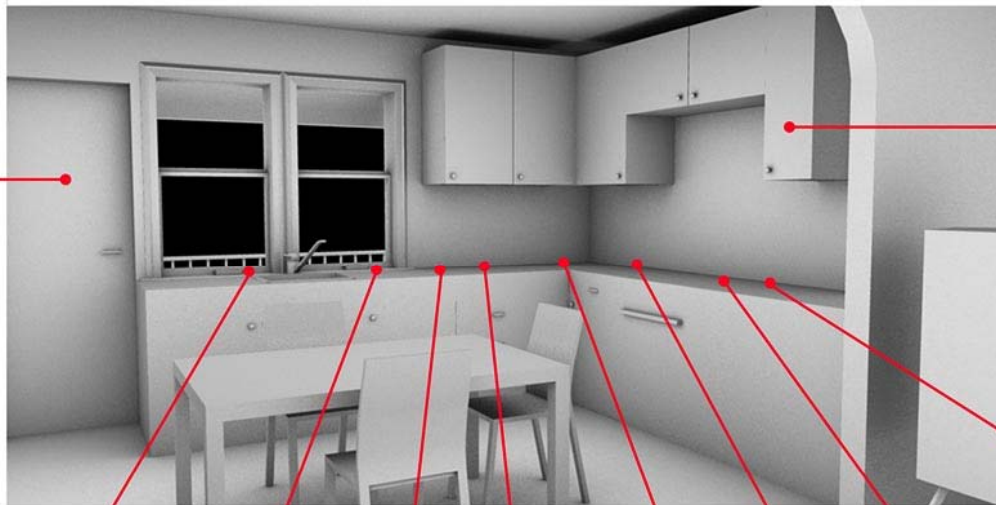
HEAVY RAIN
SET DESIGN
CONCEPT ART
ETHAN MARS' HOUSE - AFTER : KITCHEN
DESIGN BENoit



Items Board

HEAVY RAIN
SET DESIGN
ITEMS BOARD 2

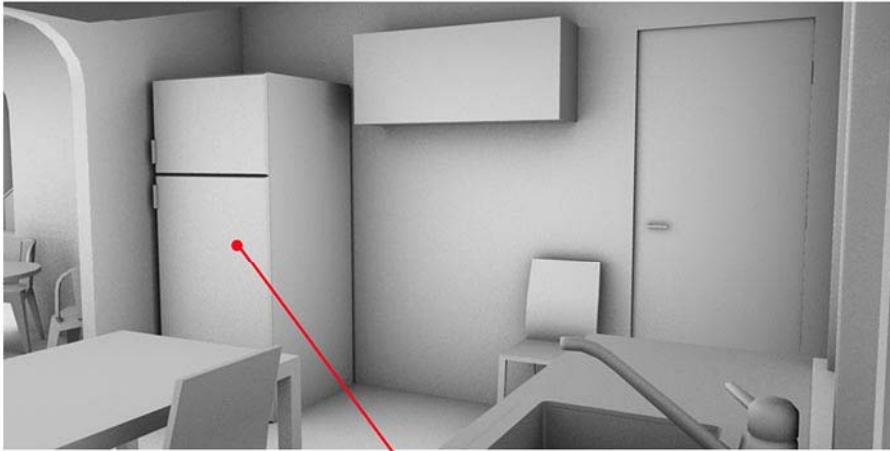
ETHAN MARS' HOUSE - AFTER : KITCHEN



Items Board

HEAVY RAIN
SET DESIGN
ITEMS BOARD 4

ETHAN MARS' HOUSE - AFTER : KITCHEN



Concept Art



Concept Art



Concept Art



ASSETS PRODUCTION OUTSOURCING PROCESS

VIDEO

*“Lexington Train Station”
Production phases*



ASSETS PRODUCTION OUTSOURCING PROCESS

Result :

450 men/month of work had been delivered:

- 55 individual sets
- In 9 months
- On time
- On budget



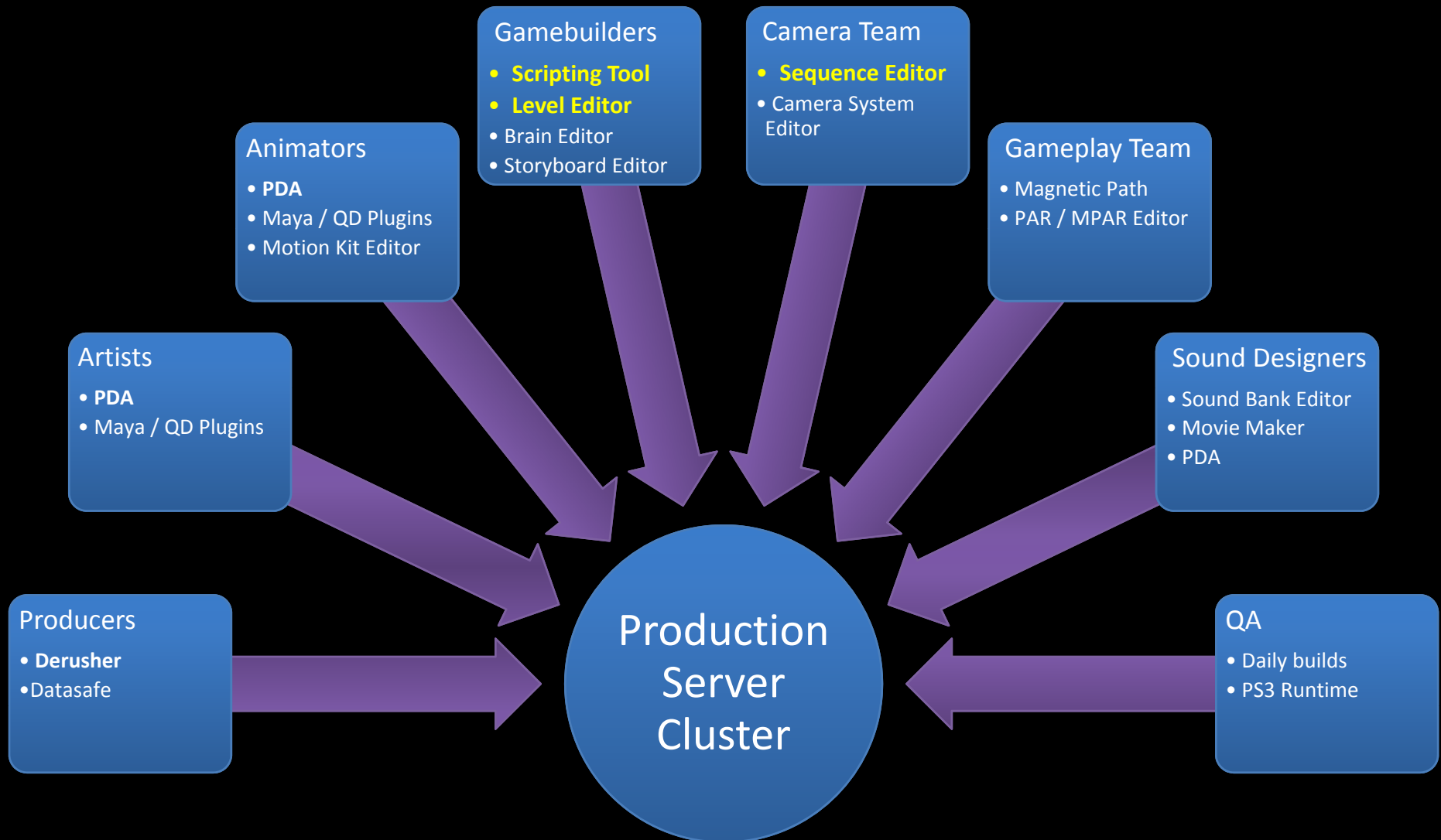
ASSETS PRODUCTION OUTSOURCING PROCESS

What Went Wrong:

- *Turn-over*
 - Quality drop because of loose of XP
- *Legal*
 - Copyrighted image use
 - Unproper names and logos
 - *Very very big issue during post-production*



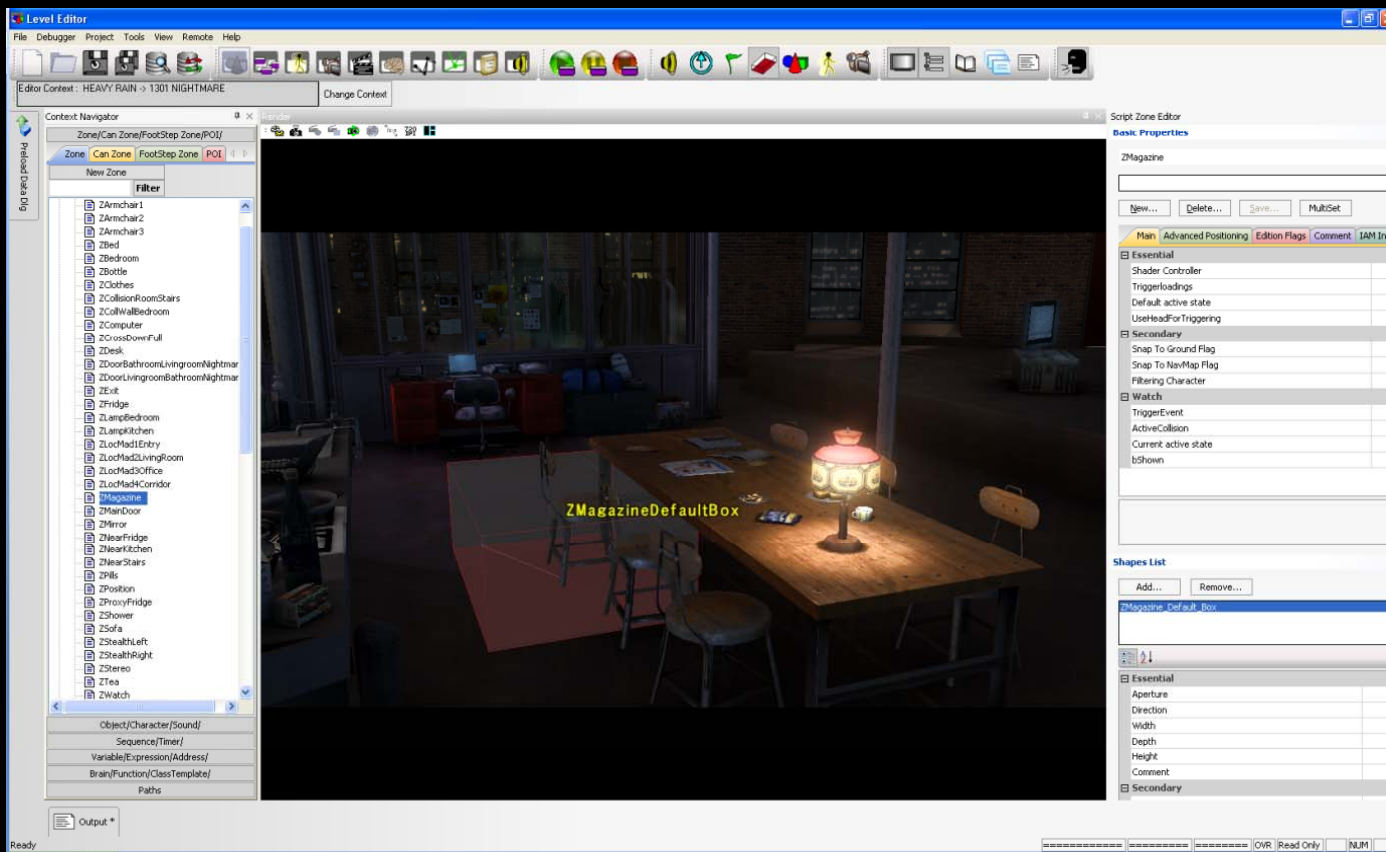
ASSETS PRODUCTION TOOLS



ASSETS PRODUCTION SCRIPTING TOOLS

LEVEL EDITOR

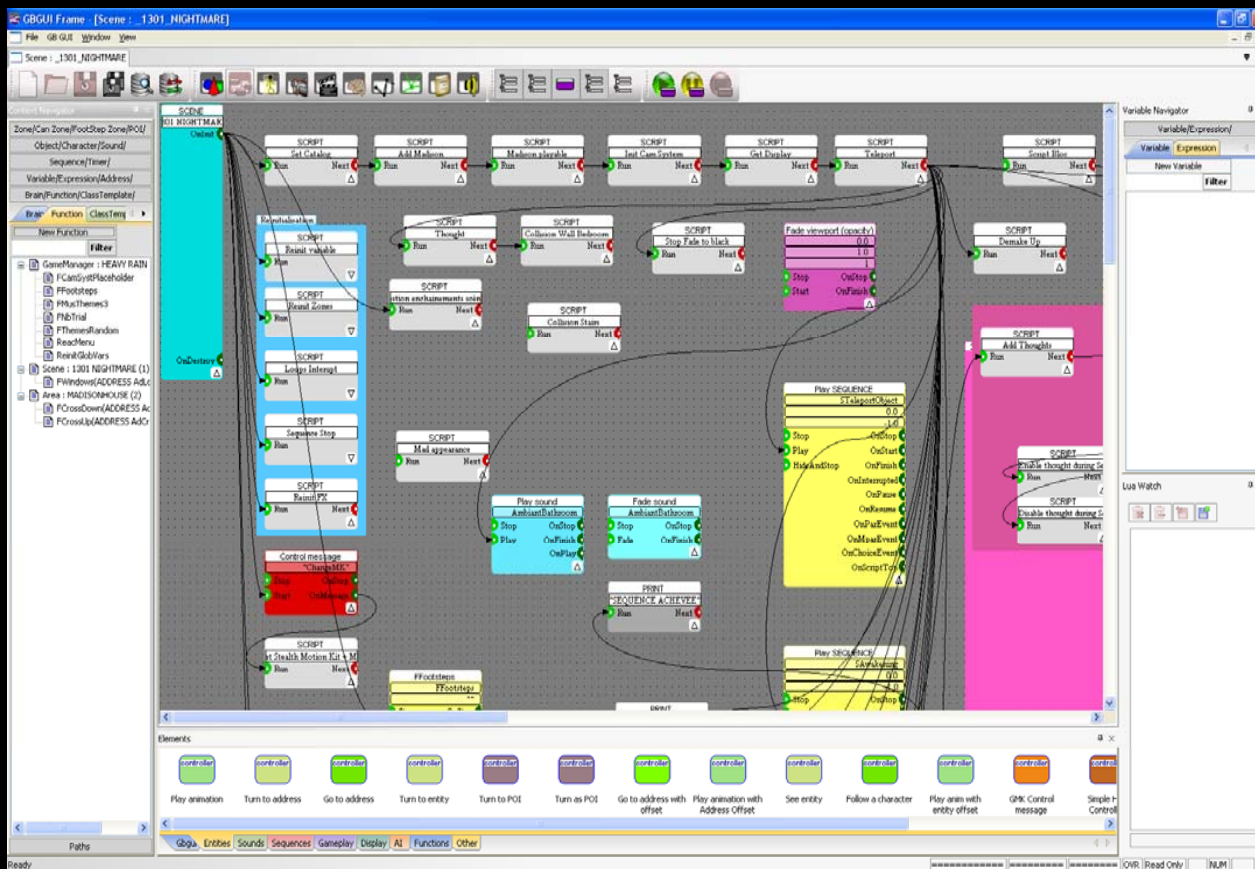
- Scene / Area
- Zones / Timers (triggers)
- Characters / Objects
- Sounds



ASSETS PRODUCTION SCRIPTING TOOLS

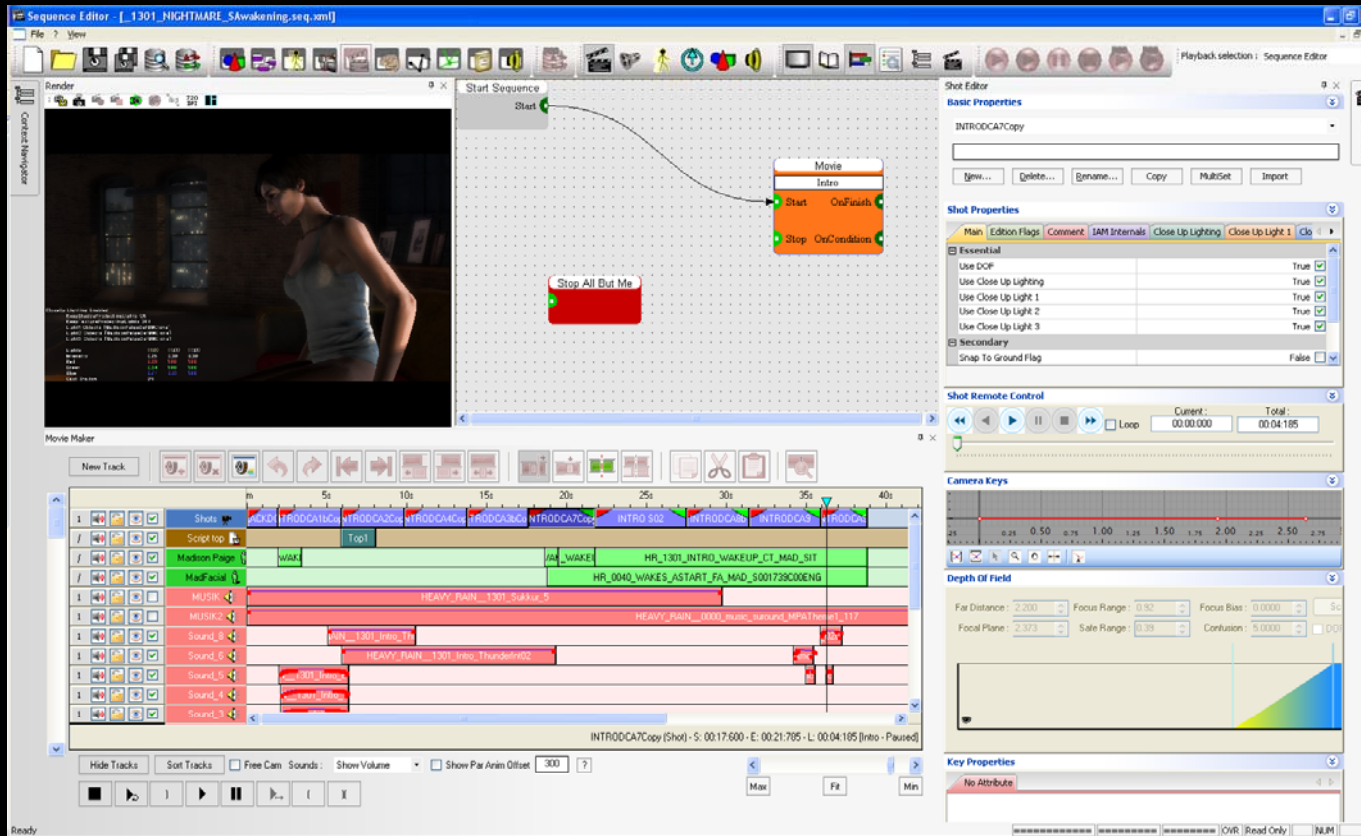
SCRIPTING TOOL

- No programming skills required
- Easy to use
- Graph Oriented Programming
- Lua generated



ASSETS PRODUCTION SCRIPTING TOOLS

SEQUENCE EDITOR



- Cinematic System in Real time
- Graph oriented tool (movie link)
- Shot Editor
- Close up Lighting

HEAVY RAIN
A CREATIVE-DRIVEN GAME



A CREATIVE-DRIVEN STUDIO

PROJECT LEAD

H.R. Project Lead is:

~~Marketing~~

~~The Publisher~~

~~Shareholders~~

~~The Producer~~

~~The CFO~~

~~The CTO~~

David Cage



A CREATIVE-DRIVEN GAME

DAVID CAGE

- *The Quality bar*
- *Technical constraints aware*
- *Guarantee*
 - Game Integrity
 - Creative Vision Consistency
- *Creative Director and CEO*
 - Brings ideas and vision as Creative Director
 - Assumes them as CEO, with Guillaume de F. (co-CEO)



A CREATIVE-DRIVEN GAME

DAVID CAGE



The Mall scene

- A Crowd of 1000 passers-by
- Player can move freely
- 5 minutes in the game
- 2 years in development!



A CREATIVE-DRIVEN GAME

DAVID CAGE

- *Not isolated in his « cage »*

– **Production issues**

Ex: One scene never built: « The Subway » action sequence



A CREATIVE-DRIVEN GAME

DAVID CAGE

– Team & « User Tests » feed-back

Ex: One scene removed to adjust the pacing of the game :

« Wake Up » scene



Shaun goes to school

A CREATIVE-DRIVEN *STUDIO* COMPANY *CULTURE*



Impossible



Challenging !



No



*Why not,
I need to think about it !*



A CREATIVE-DRIVEN GAME
CREATIVE DIRECTOR & PRODUCER *RELASHIONSHIP*

~~Vision holder vs Project Manager~~



A CREATIVE-DRIVEN STUDIO
CREATIVE DIRECTOR & PRODUCER *RELASHIONSHIP*

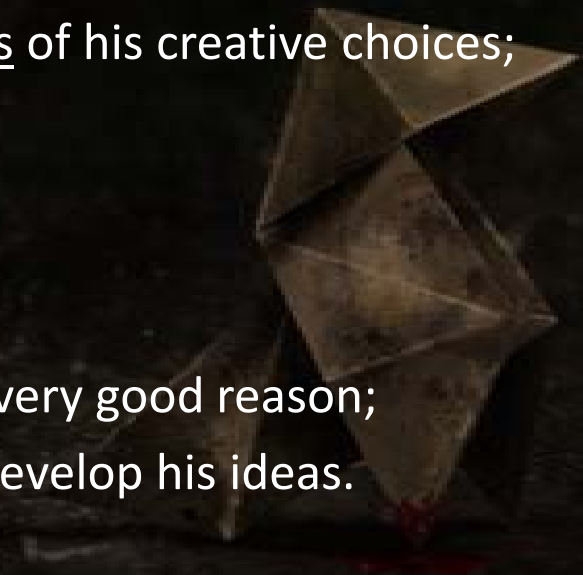
No Fight, but Collaboration



A CREATIVE-DRIVEN STUDIO CREATIVE DIRECTOR & PRODUCER *RELASHIONSHIP*

Mutual Trust

- *On one side :*
 - I know he is aware of the consequences of his creative choices;
 - I know he listens to people.
- *On the other side :*
 - He knows I won't say NO until I have a very good reason;
 - He knows I will do everything I can to develop his ideas.



A CREATIVE-DRIVEN STUDIO

CREATIVE DIRECTOR & PRODUCER *RELASHIONSHIP*

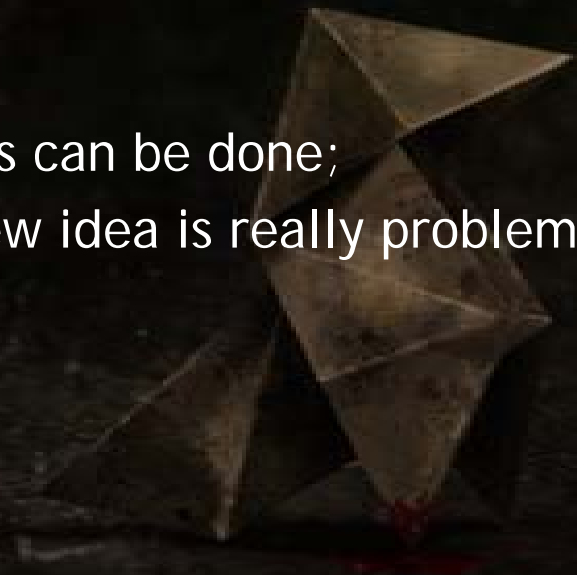
- *One voice*
 - Always the same message to the team
- *One way*
 - Both following the same way and targetting the same goal
- *One philosophy*
 - Evangelizing rather than whipping !



A CREATIVE-DRIVEN STUDIO

PRODUCER'S ROLE

- To Realise the Plan
 - To transform the Game Design into a first version of a game
- To Control the Change
 - To plan when and how modifications can be done;
 - To alert/argue when a change or new idea is really problematic.
- To Facilitate the Improvements
 - Creation needs iteration

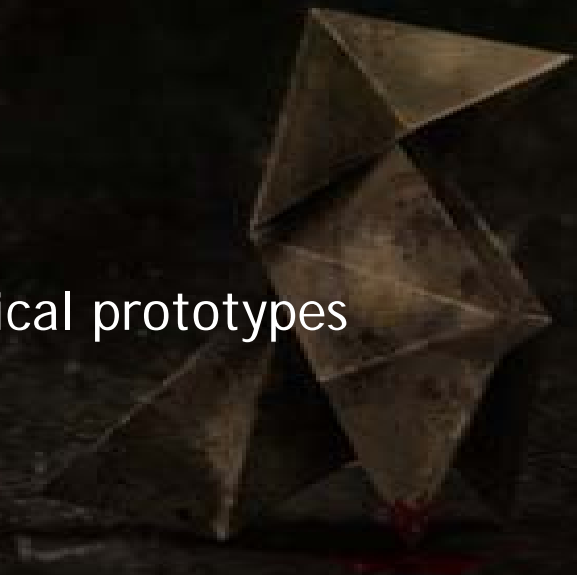


DYNAMIC *PRODUCTION ORGANISATION*



PRODUCTION ORGANISATION OVERVIEW

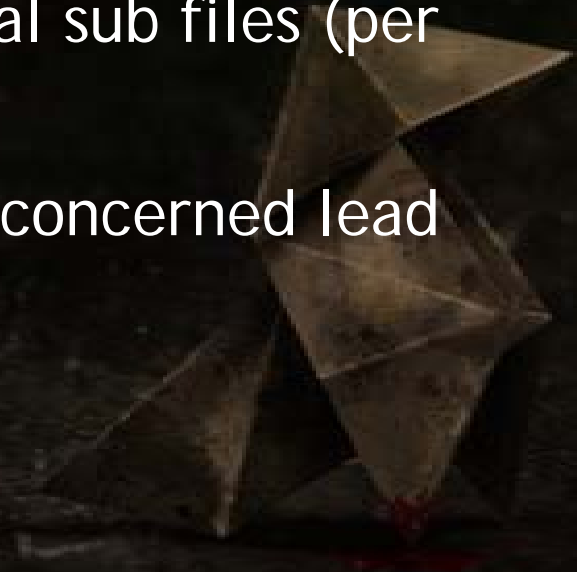
- *Adaptive* :
 - Context / Project phase
 - Discipline
- *Pre-Production* : *Mix*
 - Linear : Tools (version 1)
 - Iterative : gameplay, code or graphical prototypes
- *Production* : *Linear*
- *Post-production* : *Iterative*



PRODUCTION ORGANISATION

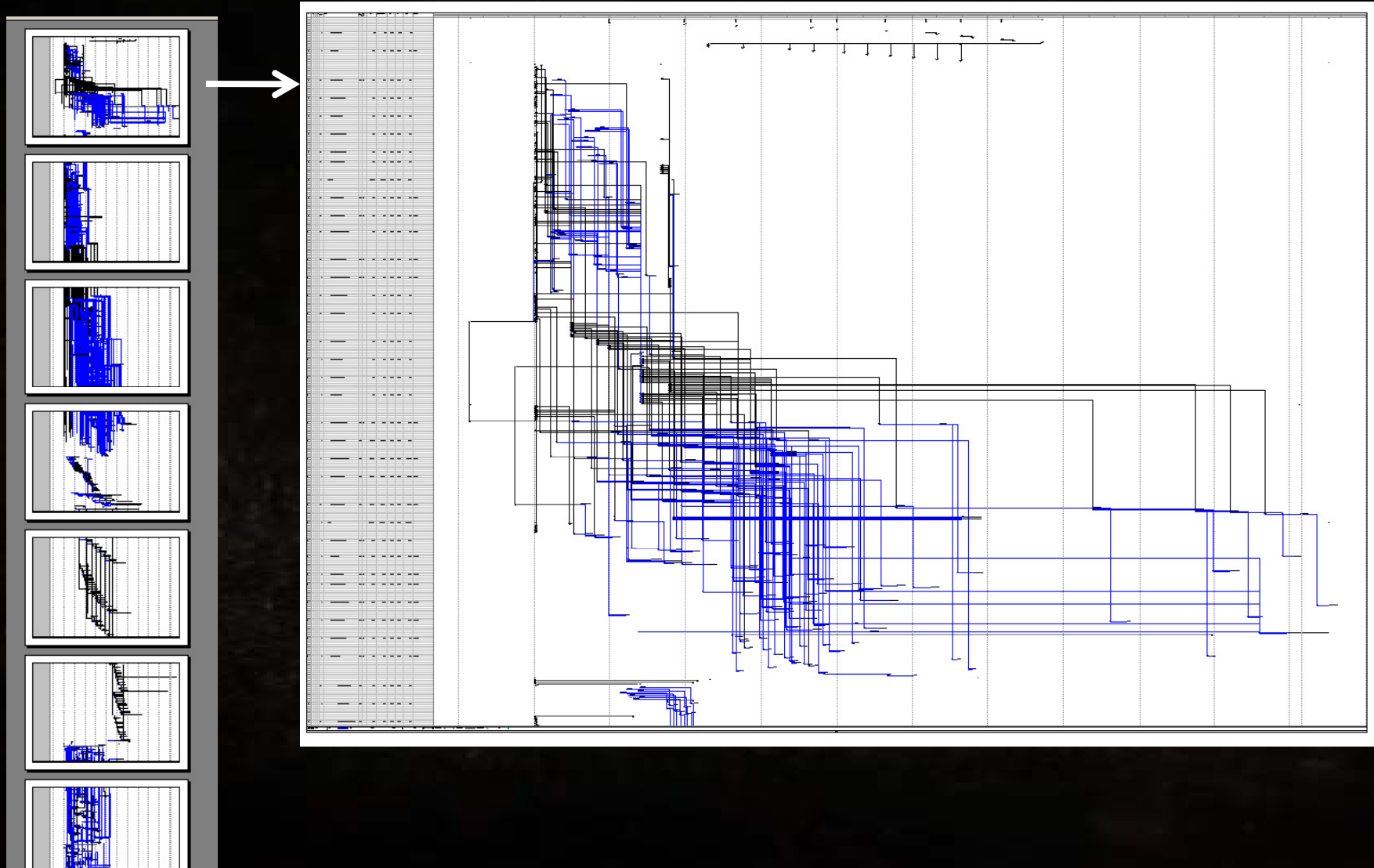
LINEAR « WATERFALL » SCHEDULE

- The whole schedule is detailed into MS Project
- One Master file containing several sub files (per discipline).
- Each file can be updated by the concerned lead



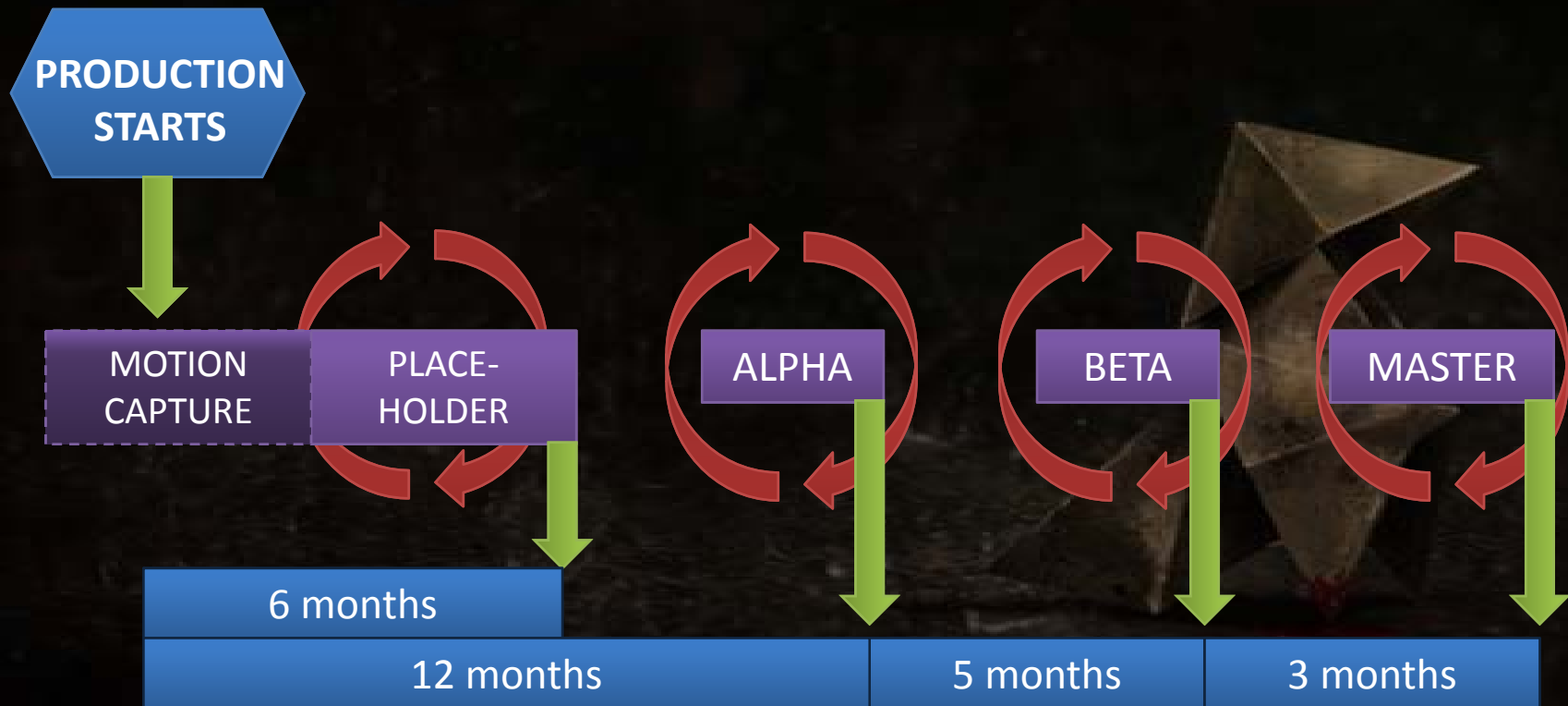
PRODUCTION ORGANISATION

LINEAR « WATERFALL » SCHEDULE



PRODUCTION ORGANISATION ITERATIVE PROCESS

Game Iterations



PRODUCTION ORGANISATION ITERATIVE PROCESS



PRODUCTION ORGANISATION ITERATIVE PROCESS

VIDEO

first version of the game



CONCLUSION

What it took to produce Heavy Rain

- Great script, driven by a strong and consistent Creative Vision;
- Meticulous preparation;
- Custom tools;
- Great outside partners (publisher, vendor...);
- Adaptive production organisation;
- And also...
 - *A courageous and devoted team*
 - *A lot of work !...*



THANK *YOU* !

CHARLES *COUTIER*

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quanticdream

