



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

GAME DESIGNER'S CONTEXT

RICH MORGAN

BA / MARTS CREATIVE COMPUTER GAMES DESIGN

Gantt Charts / allocation of roles

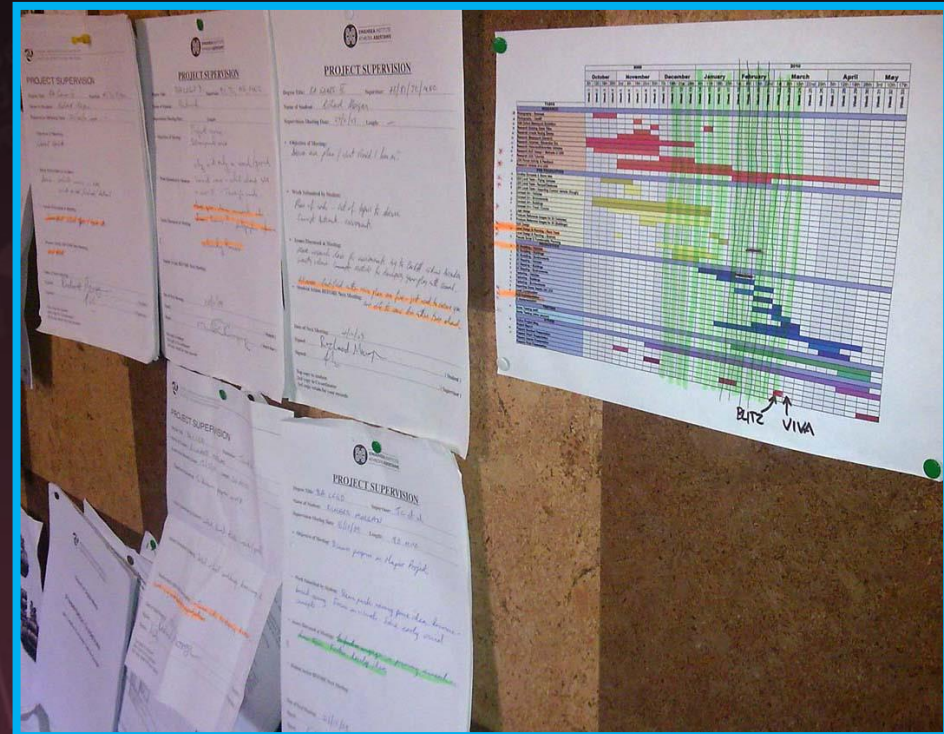
- Gantt Charts
- Student exercise – developing a Gantt chart
- Allocation of roles
- Discussion of topic

Task	Start	End
CH		
Position		
es		
mes		
ral)		
dian Era		
hian Vehicles		
ethods in UDK		
edback		
JDK		
PRODUCTION		
Game Idea		
ng Vehicles		
nps/Obstacles		
orting Custom Vehicle (Rough)		
es		
onments		
ings		
k / Course		
ce Images for 3D (Vehicles)		
ce Images for 3D (Buildings)		
& Planning – Race Track		
Planning – Scenery		
& Functionality Planning		
PRODUCTION		
- Vehicles		
g - Buildings		
g - Environments		
g - Vehicles		
ng - Buildings		
ng - Environments		
l - Vehicles		
g - Buildings		
ng - Environments		
ng Game Assets into UDK		
Construction		
Implementation		
orting Custom Vehicle (Final)		
earching Audio		
ting Audio		
plementing Audio		
TESTING		
ame Testing (self)		
ame Testing (other players)		
OTHER		
Online Project Blog		
Report		
ation		

Gantt Charts

Gantt charts are useful for production planning and ensuring schedules are successfully met.

They also allow teams to keep track of scheduling and identify issues with the production pipeline at an early stage.



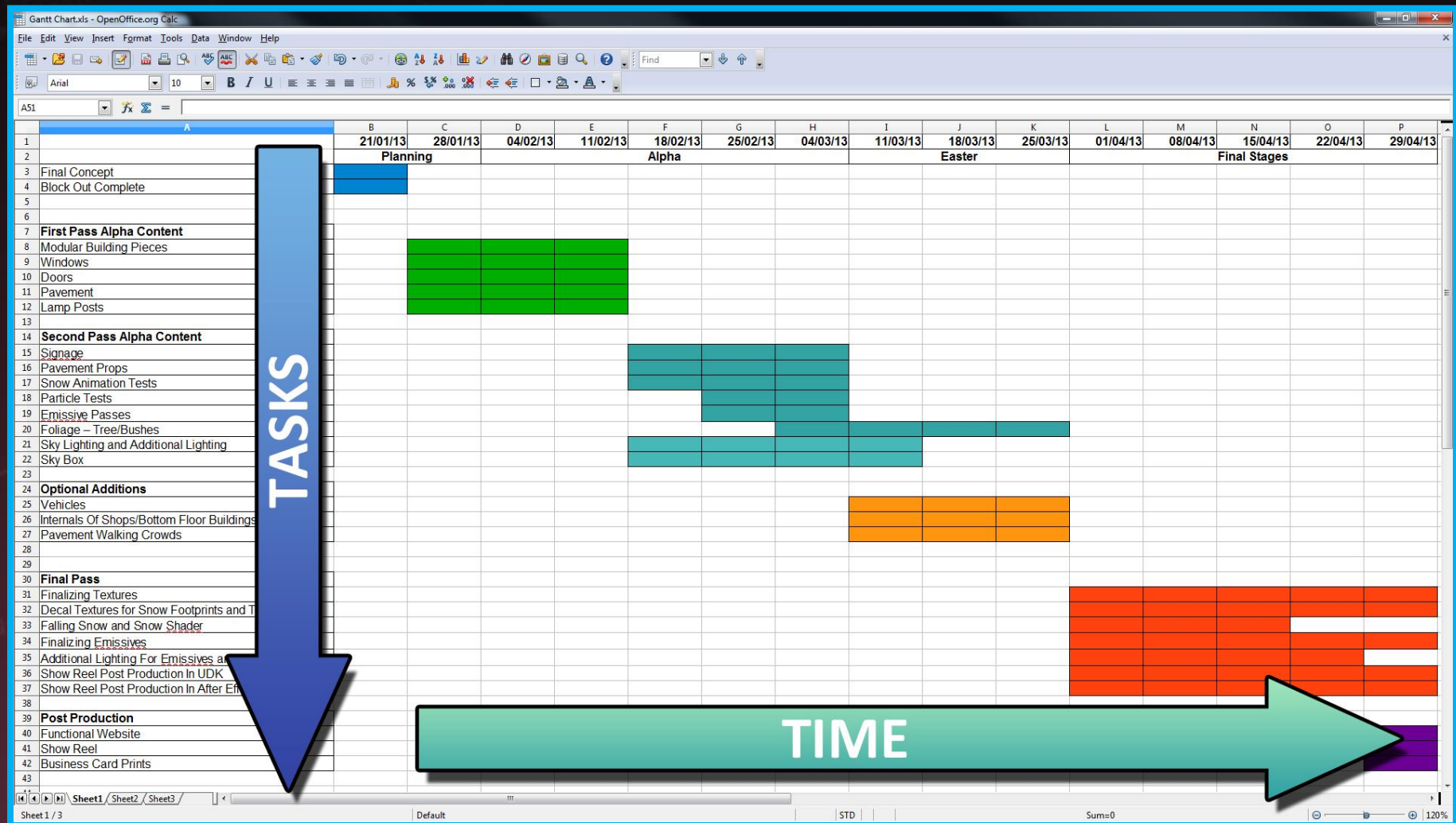
Gantt Charts

In traditional project planning, you end up with a cascading “waterfall” view, which shows the timeline for completion of the project and the dependencies that link the tasks together.

In order to do this, it is critical to remember to factor in slippage, employee sick time, unexpected delays on features, etc. This is a time-consuming step, but it will quickly give you an idea of exactly how much time the project will actually take to complete.

- Schultz, W. (n.d) *Planning a Game Development Project*

Example of Gantt Chart structure



Gantt Charts - task list

The task list on a Gantt chart should include every job that needs to be completed to enable successful completion of the project.

To help with organization it may be wise to arrange related subjects together.

Traditionally, the tasks should lead on from one another, starting from preproduction at the top to finished game at the end. This forms the 'cascading waterfall' described by Schultz.

	Octob		
	5th	12th	19th
	Week 1	Week 2	Week 3
TASKS			
RESEARCH			
Photography – Swansea			
Photography – Cardiff			
Visit Oxford Steampunk Exhibition			
Research Existing Game Titles			
Research Arcade Racing Games			
Research Steampunk (General)			
Research Victorian / Edwardian Era			
Research Victorian/Edwardian Vehicles			
Research HUD Design + Methods in UDK			
Research UDK Tutorials			
UDK Forum Activity & Feedback			
Research Vehicle AI in UDK			
PRE PRODUCTION			
Develop Synopsis & Game Idea			
UDK Level Tests – Flying Vehicles			
UDK Level Tests - Ramps/Obstacles			
UDK Level Tests – Importing Custom Vehicle (Rough)			
Concept Art – Vehicles			
Concept Art – Environments			
Concept Art – Buildings			
Concept Art – Track / Course			
Logo design			
Produce Reference Images for 3D (Vehicles)			
Produce Reference Images for 3D (Buildings)			
HUD Design			
Level Design & Planning – Race Track			
Level Design & Planning – Scenery			
Pseudo Script & Functionality Planning			
PRODUCTION			
3D Modelling – Vehicles			
3D Modelling – Buildings			
3D Modelling – Environments			
UV Mapping – Vehicles			
UV Mapping – Buildings			
UV Mapping – Environments			
Texturing – Vehicles			
Texturing – Buildings			
Texturing – Environments			
Importing Game Assets into UDK			
Level Construction			
HUD Implementation			
AI Implementation			
Importing Custom Vehicle (Final)			
Researching Audio			
Editing Audio			
Implementing Audio			
TESTING			
Game Testing (self)			
Game Testing (other players)			
OTHER			
Online Project Blog			
Project Report			
Prepare Seminar Presentation			
Prepare 'Pitch' Presentation			
Prepare Interim Presentation			
Prepare Final Presentation			



Gantt Chart - Task List examples

TASKS	5th	12th	19th
RESEARCH			
Photography – Swansea			
Photography – Cardiff			
Visit Oxford Steampunk Exhibition			
Research Existing Game Titles			
Research Arcade Racing Games			
Research Steampunk (General)			
Research Victorian / Edwardian Era			
Research Victorian/Edwardian Vehicles			
Research HUD Design + Methods in UDK			
Research UDK Tutorials			
UDK Forum Activity & Feedback			
Research Vehicle AI in UDK			
PRE PRODUCTION			
Develop Synopsis & Game Idea			
UDK Level Tests – Flying Vehicles			
UDK Level Tests – Ramps/Obstacles			
UDK Level Tests – Importing Custom Vehicle (Rough)			
Concept Art – Vehicles			
Concept Art – Environments			
Concept Art – Buildings			
Concept Art – Track / Course			
Logo design			
Produce Reference Images for 3D (Vehicles)			
Produce Reference Images for 3D (Buildings)			
HUD Design			
Level Design & Planning – Race Track			
Level Design & Planning – Scenery			
Pseudo Script & Functionality Planning			
PRODUCTION			
3D Modelling – Vehicles			
3D Modelling – Buildings			
3D Modelling – Environments			
UV Mapping – Vehicles			
UV Mapping – Buildings			
UV Mapping – Environments			
Texturing – Vehicles			
Texturing – Buildings			
Texturing – Environments			
Importing Game Assets into UDK			
Level Construction			
HUD Implementation			
AI Implementation			
Importing Custom Vehicle (Final)			
Researching Audio			
Editing Audio			
Implementing Audio			
TESTING			
Game Testing (self)			
Game Testing (other players)			
OTHER			
Online Project Blog			
Project Report			
Prepare Seminar Presentation			
Prepare 'Pitch' Presentation			
Prepare Interim Presentation			
Prepare Final Presentation			

TASKS
RESEARCH
Photography – Swansea
Photography – Cardiff
Visit Oxford Steampunk Exhibition
Research Existing Game Titles
Research Arcade Racing Games
Research Steampunk (General)
Research Victorian / Edwardian Era
Research Victorian/Edwardian Vehicles
Research HUD Design + Methods in UDK
Research UDK Tutorials
UDK Forum Activity & Feedback
Research Vehicle AI in UDK

PRE PRODUCTION
Develop Synopsis & Game Idea
UDK Level Tests – Flying Vehicles
UDK Level Tests – Ramps/Obstacles
UDK Level Tests – Importing Custom Vehicle (Rough)
Concept Art – Vehicles
Concept Art – Environments
Concept Art – Buildings
Concept Art – Track / Course
Logo design
Produce Reference Images for 3D (Vehicles)
Produce Reference Images for 3D (Buildings)
HUD Design
Level Design & Planning – Race Track
Level Design & Planning – Scenery
Pseudo Script & Functionality Planning

Gantt Chart - Task List examples

TASKS	5th	12th	19th
RESEARCH			
Photography – Swansea			
Photography – Cardiff			
Visit Oxford Steampunk Exhibition			
Research Existing Game Titles			
Research Arcade Racing Games			
Research Steampunk (General)			
Research Victorian / Edwardian Era			
Research Victorian/Edwardian Vehicles			
Research HUD Design + Methods in UDK			
Research UDK Tutorials			
UDK Forum Activity & Feedback			
Research Vehicle AI in UDK			
PRE PRODUCTION			
Develop Synopsis & Game Idea			
UDK Level Tests – Flying Vehicles			
UDK Level Tests – Ramps/Obstacles			
UDK Level Tests – Importing Custom Vehicle (Rough)			
Concept Art – Vehicles			
Concept Art – Environments			
Concept Art – Buildings			
Concept Art – Track / Course			
Logo design			
Produce Reference Images for 3D (Vehicles)			
Produce Reference Images for 3D (Buildings)			
HUD Design			
Level Design & Planning – Race Track			
Level Design & Planning – Scenery			
Pseudo Script & Functionality Planning			
PRODUCTION			
3D Modelling – Vehicles			
3D Modelling – Buildings			
3D Modelling – Environments			
UV Mapping – Vehicles			
UV Mapping – Buildings			
UV Mapping – Environments			
Texturing – Vehicles			
Texturing – Buildings			
Texturing – Environments			
Importing Game Assets into UDK			
Level Construction			
HUD Implementation			
AI Implementation			
Importing Custom Vehicle (Final)			
Researching Audio			
Editing Audio			
Implementing Audio			
TESTING			
Game Testing (self)			
Game Testing (other players)			
OTHER			
Online Project Blog			
Project Report			
Prepare Seminar Presentation			
Prepare 'Pitch' Presentation			
Prepare Interim Presentation			
Prepare Final Presentation			

PRODUCTION
3D Modelling – Vehicles
3D Modelling – Buildings
3D Modelling – Environments
UV Mapping – Vehicles
UV Mapping – Buildings
UV Mapping – Environments
Texturing – Vehicles
Texturing – Buildings
Texturing – Environments
Importing Game Assets into UDK
Level Construction
HUD Implementation
AI Implementation
Importing Custom Vehicle (Final)
Researching Audio
Editing Audio
Implementing Audio

TESTING
Game Testing (self)
Game Testing (other players)

OTHER
Online Project Blog
Project Report
Prepare Seminar Presentation
Prepare 'Pitch' Presentation
Prepare Interim Presentation
Prepare Final Presentation

There may be more tasks to do than initially anticipated – this is normal and part of the process!

However, not all of these tasks may be realistically achievable in the timeframe available for the project.

Compromises may have to be made in order to deliver the project successfully, which will result in amendments being made to your project plan.

Unforeseen circumstances often arise during production and have to be dealt with by team members – no matter how undesirable or unexpected these problems may be!

Adapting the Gantt Chart

As the project progresses, the team will have to review the work completed to date and constantly compare to the timeframes that have been stated on the project Gantt Chart.

The Gantt chart itself will have to be reviewed and modified throughout the duration of the project - some tasks will take longer or shorter periods of time to complete than expected.

This does help! Being able to get a quick overview of the project and how much time is left will assist the team in prioritising and completing important tasks in time.

BA / MARTS CREATIVE COMPUTER GAMES DESIGN

GAME DESIGNER'S CONTEXT

Intended Plan	APRIL				MAY		
	5th Week 27	12th Week 28	19th Week 29	26th Week 30	3rd Week 31	10th Week 32	17th Week 33
TASKS							
RESEARCH							
UDK Forum Activity & Feedback							
Research Vehicle AI in UDK							
PRE PRODUCTION							
Produce Reference Images for 3D (Buildings)							
HUD Design							
Level Design & Planning – Race Track							
Level Design & Planning – Scenery							
Pseudo Script & Functionality Planning							
PRODUCTION							
3D Modelling – Buildings							
3D Modelling – Environments							
UV Mapping – Vehicles							
UV Mapping – Buildings							
UV Mapping – Environments							
Texturing – Vehicles							
Texturing – Buildings							
Texturing – Environments							
Importing Game Assets into UDK							
Level Construction							
HUD Implementation							
AI Implementation							
Importing Custom Vehicle (Final)							
Researching Audio							
Editing Audio							
Implementing Audio							
TESTING							
Game Testing (self)							
Game Testing (other players)							
OTHER							
Online Project Blog							
Project Report							
Prepare Final Presentation							

Actual Plan	APRIL				MAY		
	5th Week 27	12th Week 28	19th Week 29	26th Week 30	3rd Week 31	10th Week 32	17th Week 33
TASKS							
RESEARCH							
UDK Forum Activity & Feedback							
Research Vehicle AI in UDK							
PRE PRODUCTION							
Produce Reference Images for 3D (Buildings)							
HUD Design							
Level Design & Planning – Race Track							
Level Design & Planning – Scenery							
Pseudo Script & Functionality Planning							
PRODUCTION							
3D Modelling – Buildings							
3D Modelling – Environments							
UV Mapping – Vehicles							
UV Mapping – Buildings							
UV Mapping – Environments							
Texturing – Vehicles							
Texturing – Buildings							
Texturing – Environments							
Importing Game Assets into UDK							
Level Construction							
HUD Implementation							
AI Implementation							
Importing Custom Vehicle (Final)							
Researching Audio							
Editing Audio							
Implementing Audio							
TESTING							
Game Testing (self)							
Game Testing (other players)							
OTHER							
Online Project Blog							
Project Report							
Prepare Final Presentation							

Some features may have to be prioritised - similarly, others may need to be dropped entirely.

Example: *Much Haste To Igford!* (FMP 2010)

[illegible]

The objective of using Gantt Charts is to increase efficient project management and development.

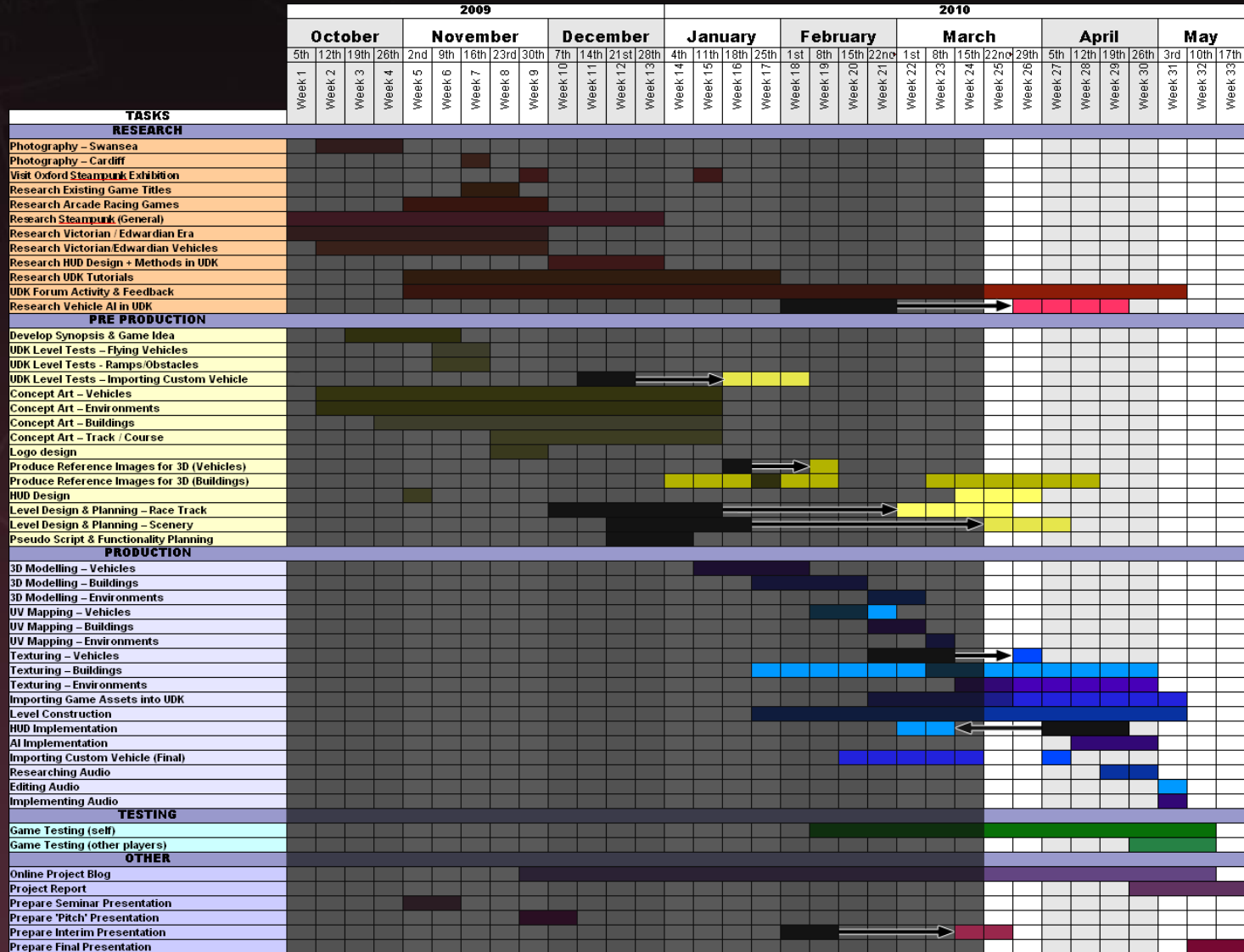
Managing, reviewing progress and goals and adapting priorities and strategies where necessary is far more important than being stubborn and trying not to compromise – it is better to be realistic and pursue achievable goals!

Be wary of dependencies and bottlenecks that may arise from restructuring your project plan!

Example: *Much Haste To Igford* (FMP 2010)

	2009													2010																			
	October				November				December				January				February				March				April				May				
	5th	12th	19th	26th	2nd	9th	16th	23rd	30th	7th	14th	21st	28th	4th	11th	18th	25th	1st	8th	15th	22nd	1st	8th	15th	22nd	29th	5th	12th	19th	26th	3rd	10th	17th
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	Week 21	Week 22	Week 23	Week 24	Week 25	Week 26	Week 27	Week 28	Week 29	Week 30	Week 31	Week 32	Week 33	
TASKS																																	
RESEARCH																																	
Photography – Swansea																																	
Photography – Cardiff																																	
Visit Oxford Steampunk Exhibition																																	
Research Existing Game Titles																																	
Research Arcade Racing Games																																	
Research Steampunk (General)																																	
Research Victorian / Edwardian Era																																	
Research Victorian/Edwardian Vehicles																																	
Research HUD Design + Methods in UDK																																	
Research UDK Tutorials																																	
UDK Forum Activity & Feedback																																	
Research Vehicle AI in UDK																																	
PRE PRODUCTION																																	
Develop Synopsis & Game Idea																																	
UDK Level Tests – Flying Vehicles																																	
UDK Level Tests - Ramps/Obstacles																																	
UDK Level Tests – Importing Custom Vehicle (Rough)																																	
Concept Art – Vehicles																																	
Concept Art – Environments																																	
Concept Art – Buildings																																	
Concept Art – Track / Course																																	
Logo design																																	
Produce Reference Images for 3D (Vehicles)																																	
Produce Reference Images for 3D (Buildings)																																	
HUD Design																																	
Level Design & Planning – Race Track																																	
Level Design & Planning – Scenery																																	
Pseudo Script & Functionality Planning																																	
PRODUCTION																																	
3D Modelling – Vehicles																																	
3D Modelling – Buildings																																	
3D Modelling – Environments																																	
UV Mapping – Vehicles																																	
UV Mapping – Buildings																																	
UV Mapping – Environments																																	
Texturing – Vehicles																																	
Texturing – Buildings																																	
Texturing – Environments																																	
Importing Game Assets into UDK																																	
Level Construction																																	
HUD Implementation																																	
AI Implementation																																	
TESTING																																	
Game Testing (self)																																	
Game Testing (other players)																																	
OTHER																																	
Online Project Blog																																	
Project Report																																	
Prepare Seminar Presentation																																	

Example: *Much Haste To Igford* (FMP 2010)



Discussion

What benefits can be obtained from forward planning using systems such as Gantt charts?

What problems may a development team experience without thinking about project management and planning long-term strategies?

Student activity:

In your groups, create a Gantt Chart for a project lasting two semesters.

Include a breakdown of the following:

- **Specific tasks (broken down into sub-sections if necessary)**
- **Time allocated for each task**
- **Team member responsible for completion of task**

Present the chart to the tutorial group, explaining the reasons behind your methodology.

Allocation of roles

- Must be considered and confirmed this week – who's skills compliment each other?
- Move out of your comfort zones in order to develop
- Refer to Feature List and Gantt chart to see who should be working on different aspects of the project
- Present the list of team roles in tutorial session

Bibliography

Schultz, W. (n.d.) *How to Plan a Game Development Project* [online]

Available at:

<http://gameindustry.about.com/od/game-development/a/How-To-Plan-A-Game-Development-Project.htm>

[Accessed 27 Sep 2013]



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

GAME DESIGNER'S CONTEXT

RICH MORGAN

BA / MARTS CREATIVE COMPUTER GAMES DESIGN