



**IGDA Business Committee**  
**- Best Practices in Resource Management -**

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April 22, 2003  
[www.igda.org/biz](http://www.igda.org/biz)

## ***The IGDA Business Committee***

The IGDA Business Committee's mandate is to empower the development community with business knowledge and in the process allow developers to make better games.

The goals of the Business Committee are as follows:

- Enable developers to build stronger, more successful companies
- Provide knowledge and business support resources
- Increase the perception of game development as a credible business and raise the profile of game developers as viable companies
- Improve the publisher/developer relationship
- Improve the retailer/developer relationship

Additional information on the IGDA and the IGDA Business Committee can be found at

<http://www.igda.org/biz/>

<http://www.igda.org/committees/business.php>

[http://www.igda.org/committees/business\\_members.php](http://www.igda.org/committees/business_members.php)

## ***The Best Practices Roundtables & Reports***

The Best Practices Roundtables & Reports are one of the 2003 initiatives of the Business Committee of the IGDA. The end goal of these roundtables is to prepare a summary report on each topic for distribution to the game development community via the IGDA web site. In sharing this best-practice knowledge, we hope that developers will thereby be able to improve their human resources, schedule their projects more efficiently, work with their publishers to optimally market and promote their games, improve quality assurance testing on their games, and bring greater financial stability to their companies. The five topics covered in 2003 were:

- Best Practices in Human Resources
- Best Practices in Resource Management/Scheduling
- Best Practices in Promotion/Marketing
- Best Practices in QA/Testing
- Best Practices in Finance

Additional information on the Best Practices Roundtables can be found at:

[http://www.igda.org/biz/best\\_practices.php](http://www.igda.org/biz/best_practices.php)

## Overview

This roundtable on best practices in resource allocation was held in two separate sessions at GDC 2003 (March 6, 2003 and March 8, 2003). The roundtables were organized with a specific agenda to consider the varying schedule needs of game development, and to evaluate common practices for addressing those needs. The outline for this session was focused on three main stages of resource allocation: 1) creating the initial schedule; 2) managing the schedule during production; and 3) resource management during crunch time.

In general there are common scheduling tools (Excel, Project, and Notepad), management processes, and production variables which help to shape the roundtable discussion points. Most of the developers at hand seemed to struggle with the same common issues, which helped to focus the discussion on resource management best practices.

As the roundtable progressed, best practices were proposed and discussed. Also, variables that dictate what a schedule must be were acknowledged. The reasons for scheduling, and why product must ship on a given date were addressed.

The best practices that were discussed are each organized around the following format:

- “Name” of the best practice
- Notable Quote
- Description of the best practice
- Pros
- Cons
- Other successful alternatives or variations

## Best Practices

### 1. **Creating the Initial Schedule and Resource Allocation.**

#### A) **Determine Schedule Dates.**

*Description:* Define the actual dates that will define your schedule so that you know what your limitations are. Is this a fixed schedule or not? Is your product driven by a holiday ship date, or by a sports season? Acknowledge all of the “hard points” which are set in stone.

*Pros:* By defining your hard dates, you know what production schedule the resources available must meet. You can then begin to shape your plan.

*Cons:* Becoming too rigid up front may not provide the flexibility needed to address schedule overruns.

*Other successful alternatives or variations:* Many variables can determine your schedule constraints. Identify these variables to give yourself a target to shoot for.

## **B) List Schedule Considerations**

Notable Quote: “*You need to tag certain items to be ‘cuttable’ first.*”

*Description:* Outline all of the factors that will effect your production schedule, and what must be included. For example:

- Leveraging existing technology
- Allowing time to “tweak” the game
- Using existing art assets.
- Budgeting and Cash flow
- Feature set prioritization
- Back up plan.
- Milestones
- External considerations (movies, E3/other tradeshow)
- Available team
- Contractors
- Vision Goals
- Asset/Tool Dependencies
- Console considerations
- Focus Testing
- QA
- Localization
- Audio
- Marketing Materials/PR
- Public Demo
- Publisher’s marketing plan.

*Pros:* Identifying these schedule considerations will help you to understand the task at hand when creating the preliminary schedule.

*Cons:* It is impossible to consider everything that will affect your schedule, so this should be seen as a starting point.

*Other successful alternatives or variations:*

- Don’t include lead programmer, lead artist, and lead designer in the schedule so that they can spend time as the buffer for the team in regards to external needs/considerations (marketing).
- Schedule in time to address external considerations that aren’t necessarily related directly to product development.
- Schedule public demos and marketing materials

### C) **Create the Initial Schedule:**

*Notable Quote: “There are two different kinds [of Schedules]. One is where the product needs to be done at a certain date, at which point you can start to define a feature set that you can have done at that date. Then there’s other ones where they want a feature set, then you tell them how long it will take you. They don’t like that date and it becomes an iterative process”.*

*Description:* Keeping the dates and other considerations in mind, the next step is to create a preliminary schedule. With this preliminary schedule, you should be able to move the project forward.

*Pros:* Creating the preliminary schedule is the first step in tying together all of the known factors. It helps your production to take shape, while at the same time indicating the areas that need more attention to detail.

*Cons:* It is easy to make the first schedule too rigid, and almost impossible to make it accurate.

*Other successful alternatives or variations:*

- With multiple projects running simultaneously, you can create flexibility in the schedule by rotating resources between projects.
- Company-wide, the only way to give your production a “turbo boost” is to add external resources to the project.
- If you can share technology between projects, both projects can pay for a percentage of that technology.
- Creating the preliminary schedule is an iterative process. Create the game design, then create the technical design, then create the schedule. Develop these documents in tandem.
- Schedule down to the hour in order to account for everything, but don’t show that schedule to anyone, just use it to define the project scope, and gain an in-depth understanding of the task at hand.
- Don’t make a huge Microsoft Project schedule with lots of dependencies at this point.
- Evaluate risks and schedule around them.

## **2. Managing Resources and the Schedule during Production.**

### A) **Quantify Buffers for Your Schedule.**

*Notable Quote: “People have two weeks of vacation a year, a week of sick time, and a week at Christmas, so people work eleven months a year. That’s the baseline.”*

*Description:* Life hands us unknowns that affect the schedules. Sick days, bus accidents, emergencies, power outages, and floods. Developers need to account for these unknowns as much as possible when creating their schedules

*Pros:* Scheduling a buffer helps to make your schedules more reliable. It is not a matter of if it will slip, but rather, when and how it will slip.

*Cons:* By its very nature, “buffer” as a schedule line item is not very accurate. You can only go by past experience to help you estimate time for the unknowns.

*Other successful alternatives or variations:*

- Add 20% to team estimates.
- Don't schedule work on Fridays. Use it for catch up. In severe cases, use Friday and the weekend to catch up.
- Use 11 months a year as a baseline, then buffer 15-50% depending on the complexity of the scheduled task.
- Schedule points in the project where you can successfully integrate new people.
- Schedule ramp up time for new contractors or personnel depending on what is required of them.
- Schedule in time for milestone preparation - as much as one week for a milestone.
- Track individual people and build a system for identifying trends in an individual's assessment of the time it will take them to complete their tasks. Use this trend analysis to accurately predict a person's actual schedule.

## B) **Add detail to your schedule during production**

*Notable Quote:* “*I schedule every hour of the production right from the beginning. It takes about a month. I don't show anyone that schedule*”.

*Description:* It seems that most participants add detail to the schedule as it moves forward. Though the complete schedule is done, the detailed actual schedule is usually completed about a month in advance.

*Pros:* This allows you to take into considerations all of the things that have happened along the way, and adjust the detailed schedule accordingly.

*Cons:* You have to watch for slippage. You cannot blindly adjust your schedule to only account for current needs. You may also have to put one of your contingencies into action to regain schedule ground.

### 3. Crunch Time and Schedules

#### A) Track your Schedule.

*Notable Quote: “Have one person whose job is to track the schedule. A common mistake is to have the primary producer handle this task”.*

*Description:* In order to adjust the schedule during production, you must track your progress to know if you are slipping.

*Pros:* This allows you to make sure that you are staying on schedule. It also allows your team leaders to take responsibility for the schedule, and making sure that tasks are getting completed.

*Cons:* You don't want your tracking methods to seem like mistrust on your part. Constant communication seemed to be the most accepted way to avoid this.

*Other successful alternatives or variations:*

- Team members track their own progress. They update each task, add tasks, move tasks, on a weekly basis, and report those changes by e-mail to the producer, who updates the schedule.
- For art, schedule one person to use Alien Brain (or other similar programs) on a full-time basis.
- Conduct random audits about once a week for each person. Keep the interaction between team members frequent.
- Have one person solely dedicated to schedule tracking, not the lead producer, but someone who works closely with the producer.

#### B) Address Slippage Immediately.

*Notable Quote: “Sometimes it is easy enough to say that a guy was sick for a week so you push your schedule a week. But most of the time, other things have gone wrong so you better look into it and see what it is”.*

*Description:* If you notice that you are consistently missing milestones, or that slippage has occurred, address the issue immediately so that the problem does not get worse.

*Pros:* By addressing slippage immediately, it may be possible to identify the issues causing the slippage and correct the situation. The earlier you catch the slippage, the more likely it is that one of your buffer techniques can correct the problem

*Other successful alternatives or variations:*

- Publishers are logical. Explain why the project or milestone is late so that they can understand the slippage.
- If you expect serious ramp up for a person who is added to the project, charge for additional man weeks for that person and explain that that individual will not be contributing to the project until the following month.

## ***List of Participants***

(note – more people attended the sessions than are listed below, but not all filled out the sign-in sheet)

Name	Job Title	Company
Heidi Amsler	Executive Producer	Global Star Software
Eric Marcoullier	Producer	Cyberlore
Michael Kelbaugh	Director/QA	Nintendo
Darren Wood	Development Manager	Blitz Games
Amber Liu	C.O.O.	Gamania
Antonio Farina	President	Milestone
Dan Duncalf	CEO	Pipeworks Software, Inc.
Noriko Wada	Localization Manager	Namco
Eric Zwerling	Producer	Ubi Soft
Tom Ketola	Director of Development	Radius 9 Inc.
Craig Brannon	Director of Development	Legacy Interactive
Chris Clay	Art Director	Turbine Entertainment Software
Brian Krueger	Production Coordinator	Factor 5, LLC
Susan Collins	Director	Parthenon Technologies
John Collins	President	Parthenon Technologies

## ***About the IGDA***

The International Game Developers Association is the independent, non-profit association established by game developers to foster the creation of a worldwide game development community. The IGDA's mission is to build a community of game developers that leverages the expertise of our members for the betterment of the industry and the development of the art form.

Visit [www.igda.org](http://www.igda.org) for more information.