Postcard From The Montreal Game Summit: *Call Of Duty 2* Postmortem

By Jill Duffy

Grant Collier, CEO of developer Infinity Ward, knows about expansion. When Infinity Ward ramped up to build *Call of Duty 2*, the Activision-published Xbox 360 launch title, the team working on it rapidly mushroomed from 25 to 75 people. At the Montreal International Game Summit, held November 2 and 3 in Montreal, Collier spoke to a full house on the topic of business expansion and developing a next-gen title.

In fact, so many attendees turned up to hear Collier's talk that the location was moved from a cramped conference room to the main auditorium of the Mont Royal Centre. Collier took an informal poll to discover that between 90 and 95 percent of the audience were game developers.

Infinity Ward's Tour Of *Duty*

Collier's talk, though billed as a postmortem, mostly discussed changes that affected Infinity Ward as a company after its staffing up period, and some of the inventive ways the team researched their subject matter in order to make *Call of Duty 2*.

Call of Duty 2 is a World War II Xbox 360 FPS title, also being released for the PC, and continuing the popular Activision-published series. "We like to do epic nature, cinematic types of first-person shooters," said Collier, "where we put the player in the shoes of the soldiers fighting on the front or multiple fronts." The game, he said, considers many perspectives, such as that of the English, Russians, and Americans during the Great
War. "World War II was a global conflict. Everyone in the world—their lives were touched by it in some fashion."

He elaborated on the scope and nature of the war, saying it was the last conflicts in which large-scale armies fought other large scale armies. It was the first time a large air force was assembled. It was full of huge naval conflicts. And it was the first war that used machines guns used on a large scale. Weapons included grenades, tanks, and smoke (used to blur an enemy's vision).

"There are so many stories to be told" about this war, said Collier. And the breadth of casualties was devastating. "More people died in World War II than we have gamers today." "We did volumes and volumes of research," said Collier. A handful of
team members went on location for the first time to North Africa to see the cities and get a feel for their climates. Collier described the continual dust that kicks up in north Africa, dust that pervades everything. A trip was made to France as well to study the actual layout of some towns and cities, rather than map them for the game according to imagination and Hollywood, said Collier.

Re-Enactors And Advisors

"Next, we had reenactors who came in. These guys are sticklers for the details. They really care about details," said Collier, referencing specifics such as the medals found on military jackets, buttons, rifle engraving—all manner of details relative to the time and place. "We had

about four reenactors that we contracted to come in. We photographed them," he said, adding that each of the actors was modeled and used in the final game.

Collier said the group also hired two military advisors, a former tank commander who served in north Africa during World War II, and a Lieutant Colonel Army infintry soldier. Tanks are used heavily in the game, and the strength of the German's machinery is matched with historical accuracy to the weaker Allies' tanks, who made up for the
inferior machines by strength in numbers and speed.

Everyone on the team researched the subject matter, said Collier. Those who didn't visit Europe and Africa were freely invited to meet with the reenactors when they came to Inifinity Ward's office. Other team members combed libraries and rented DVDs done by the History Channel in order to learn more about the war.

The Price Of Beauty

Since the team size nearly tripled in anticipation of *Call of Duty 2*, so did the budget, and Collier gave out a rare concrete cost figure for a next-gen game - the title was made in two years in a $14.5 million budget, and the game shipped on time.

Some major changes made to the sequel game were the addition of "portable concealment" (or smoke weapons), enhanced weather effects, a new health system (the player can only die in a limited number of specific ways), and a "battle chatter system."

"Once the first shot is fired in warfare, people aren't just staying quiet. Once there's no surprise, people are just yelling all over. They're constantly shouting out backwards and forwards," and men in combat often grow hoarse or lose their voices on the front. The battle chatter system is group of more than 20,000 lines of dialogue that are used to this effect. "The battle chatter system actually takes up more space than *Call of Duty 1* in its entirety", said Collier.

Dealing With Staffing Up

In discussing the changes at the employment level, Collier seemed slightly wistful of the days when, with only 25 people working on one project, one common goal, the team could "turn on a dime" and had a "family atmosphere." "Everyone wanted to be successful," he said of the corporate culture of yesteryears. "That whole small company culture is all precious and dear, and we tried to hold onto that culture as long as we could," but it was "impossible after 50, 60 people" were in the team, he said.

To lessen the blow of change, Infinity Ward focused on increasing communication as employment increased. Mandatory Monday meetings quickly became the forum for everyone to check in and learn what others were working on. The meetings, he said, would give people "a pipeline into management."

Layers of management were created. Roles for both associated producers and full producers were granted. Key employees from previous projects were promoted to leads in order to keep them involved in their areas of expertise (for example, architecting the systems) but empower them to portion out tasks as well. The next step is to hire an events person to organize spirit-building events, like barbecues, movie outings, and write a company newsletter. Collier hopes that more fun and more events will help the small-team culture prevail even in the larger structure. "As people know, building up a company very quickly is a very dangerous thing to do. You can be successful at a certain level, but then it quickly becomes hell in a handbasket."

Active recruiting, managed by a dedicated, on-staff recruiter, is another component to expanding wisely, said Collier. "We have two to three interviews on a normal week. On a slammed week, we could have six to eight interviews," he said.

Conclusion

In wrapping up, Collier spoke at length on the topic of mandated overtime, saying that Infinity Ward never once [had?] mandatory overtime on a weekend, which is not to say that people didn't work then, only that they were not forced to. "We hit all of our [dates,] we were the first Xbox 360 title to go into manufacturing and we're out early for Christmas," he said, "and never a single mandatory work [h]our on the weekends."

Other work practices that Collier shared included front-loading difficult tasks. He cited multithreading as an example of work that should be front-loaded."Knock it out in the beginning or don't do it. If you do it at the end, it's not going to happen and your'e going to miss your dates."

The Infinity Ward team, while working on *Call of Duty 2*, also spent about eight percent of its whopping budget on audio. Collier says a number of team members flew out to Arizona, where test fields and firing fields are abundant. They fired numerous weapons in order to both observe the movements and impacts of the arms and their artillery, as well as to record the weapons' sounds.

Finally, Collier finished by discussing the game's budget in terms of "what went wrong," Collier admitted that the team had encountered some issues with the reliability of Microsoft's early Xbox 360 development kit. Of the 50 Xbox 360 dev kits supplied to Infinity Ward early in the project, only about 20 of them are still useable, and he explained that more than half of the kits just died.