Chat with a Konami Programmer
(Version 3)

(Warning : quickly transcribed. Forgive any grammatical or spelling errors or errors of any kind for that matter.)

This is translation of a transcript of a converation I had with a programmer from Konami that worked primarily on DDR mixes from 4th mix up to DDRX. From here on I will use "A" for my lines and "T" for his. This is meant for entertaiment purposes so take it as you would like. I purposely cut out a lot of "Oh" and "Ah" and "I see" to acknowledge I was paying attention as I was frantically writing it out. I might have missed some small points while writing it out and talking at the same time so I apologize if it reads a bit fragmented

A : Wow, nice to see you finally. You're still up?

T : Yes, I'm usually up late.

A : Are you working?

T : No, it's just been too hot and I can't sleep at night (haha)

A : So I understand you are a programmer for Konami
A : and you worked on the Bemani line?

T : Yes. It is more correct to say I worked in the Bemani division since the games tend to share at least some of the same code base.

A : How did you get involved with DDR

T : I was moved there after a few staff moves and departures.

A : Does the DDR team really need so many programmers for a system that is relatively simple? I would think the artists, musicians and step/chart makers would be busier making content than anything.

T：At its core that is right but we had to keep coming up with new ideas and that usually required a change to the system. We also had to keep up with the new hardware platforms and sometimes make optimizations to the system with new versions.

A：What are some of the ideas that kept you busy?

T：The change to 6 panel was an interesting one. It did not take long to change the system from 4 types of input to 6 (it was originally 8 but we couldn't think of a good way to display that on the screen without it being very confusing), but making charts for the songs was always a very awkward experience. We could visualize in our heads a step pattern for 4 directions but we had trouble with 6 because it felt more natural to think in terms of 4 or 8 directions.

A：Why didn't that last beyond 4th Mix Plus?

T：The players found it as confusing to play as the creators found it to make content for it. It almost lasted until DDR 5th Mix Solo, but that was scrapped when the feedback was not so positive to continue the series. The management also was never that fond of the Solo series, though they liked the idea to capitalize on the Dancemania Bass series.

A：Whose feedback?

T：Arcade managers and staff that got feedback from their customers.

A：Does Konami really care about these things?

T：The popularity of 3rd Mix shocked the management and they wanted to find out how they could keep the same level of excitement.

A：Isn't that also what the test locations are for?

T：Partially, though we are more interested to see how the system operates as a whole for those. The feedback we get is mostly used to confirm our own suspicions about any issues with the content or system.

A：And difficulty?

T : Only partially. We just wanted to make sure it wasn't too easy or too hard.

A : What is an acceptable level?

T : For the average gamers, As and Bs were fine. They tended to ignore the results of the players very good at the game and those that gave up right away. It is hard because those that attend the test location versions tend to be more expert players.

A : So Konami ignored the AAAs at the DDR Extreme test location and future mixes, right?

T : Yes, though they were interested in keeping statistics.

A : Why did (do) they ignore the expert players? I mean at test locations and in the final release.

T : The expert players don't get ignored and there is content made for them. At a test location version they skew the average player skill impression, though.

A : Since we are going in chronological order. 5th mix changed from 30fps to 60fps. Did that cause any problems during development?

T : The base game was the same so it was just a matter of getting that to work under a different engine. That was easier said than done sometimes, though (haha). It would look to work very soon but the behavior was sometimes very random and debugging was harder than it should have been.

A : Did the programmers or management decide it should/could be done at a smoother framerate?

T : Yes

A : I mean who decided that

T : Oh, we actually started developing that during 4th mix and pushed for it as early as

4th Plus but the project leaders told us to wait and we would use it in 5th mix when it was less buggy

A : I remember there were some serious synching issues with the older songs on 5th Mix, though

T : For me, one part of the team worked on getting everything running under the new engine and there were others that were left in charge of syncing the content at the last minute

A : But it was really off.

T : There are usually many junior programmers and trainees and interns that work on these parts of the game. With the new licenses, they usually have to be demonstrated to (and tested by) the project leaders and management so there is a bit more effort early on to get that part of the game finished or presentable.

A : Like with Ken Matsumoto and his Paranoia Eternal chart?

T : Yes, and the licensed content like the BeForU content.

A : Was it not tested?

T : At the time those junior programmers and interns were also responsible for implementing testing though their leaders also tested it. However, the skill level of the developers and mangers was very low so maybe they couldn't properly test the more difficult content.

A: So are the older songs just filler?

T: It felt that way at times but we wanted to carry over the songs that were popular or left an impression. Everyone thought they knew which songs were still popular but it never seemed to work out. There were always songs that players liked but they mainly wanted to play the new songs.

A: Sometimes older songs were revived for future mixes though...

T: At test locations Konami likes to ask if there are any songs they would like to see brought back. Even when we did though, they never really got played after a few plays unless someone really liked the song or had a performance routine for it.

A: So was it policy to not worry about the older songs?

T: Kind of, though we were not against reviving songs since they give a certain flavor (?) to the game I can't describe. Also, players tended to play more if they thought there was more content. The only time revivals were a big thing was with Max 2, but that almost seemed artificial since the players were denied older songs on DDR Max.

A: Artificially inflating the total?

T: Only for the longer time players. Konami was still relying on newer players to the series where this was all new. In the end the newer players still chose mostly from the newer content, though.

A: So is this why DDR Max used only new content?

T: Maybe, but we knew there would be a Max 2 since development had already started when DDR MAX was released. It was more of a mix where we were making many changes to the base system and wanted to see it all in action. We were told MAX had to be something new and exciting.

A: Weren't 4th and 5th mixes exciting?

T: We wanted to think so though DDR was never as popular as it was with 3rd mix. I think my manager was always a bit sad at that. (He was also sad because Keyboard Mania was stopped at 3rd mix and that was his favorite series) The executive wanted a lot of new changes to revitilize the series. It felt like a passionate battle to try and revolutionize the series with DDR MAX.

A: Were the changes all new from MAX or has some of this been in development for a while?

T: Most of the ideas were from before then though they only got implemented in MAX. Some didn't even make it out until much later like the screen filter. The management was against it because they didnt want the backgrounds to be hidden and the graphics programmers threw a tantrum about it when it was suggested.

A: Was the choice to put in Max 300 also part of the revolution?

T: Yes. They wanted another "Paranoia" for the modern DDR so they wanted something unique and more difficult than anything before it

A: Max 300 is still a popular pick based on the eAmuse play stats, but did it live up to what Konami hoped to get out of it?

T: Oh yes. Not only was the Extra Stage system a success but players just wanted to play to get a crack at playing it. The stage after that was also planned but there was worry that Max 300 would be too difficult to score an AA grade so most would not see the extra stage after that.

A: Did you hear about how well players were doing on the song?

T: Actually, it surprised the staff here. The projection was that it might be AAd after a month or two but we had reports of that happening in a few days.

A: It was later AAAd, too.

T: Yes, and at the time we didn't think it was realistic for someone to score so well on that song. That is not true today, though with much harder material.

A: Did Konami understand the skill of the players?

T: Like I said, they focus on the casual and lighter players and provide enough variety in the content that they will keep coming back. The extreme players put in several times the credits into the series but they are still hugely outnumbered by the lighter players so we were told not to focus too much on them. Personally we enjoyed hearing about the best accomplishments, though. I think the executive did underestimate the skills of the best players mostly because the in-house talent was never very high.

A: Is that why the licensed songs and much of the new content for each version is not so difficult in comparison to the boss songs?

T: Mostly true. The licensed songs are purposely made not to be boss songs because lighter players don't tend to play the harder songs, even on the easier difficulties unless it is an extra or bonus stage that doesn't matter (they have already played a full game worth) If we made the songs all too hard it would be a turn off for the lighter players and we would lose a large number of players, even if they really liked the song. Also the artists sometimes like to play their own song when possible and they would like to pass it. Most musicians are not DDR players so we can't make it too difficult.

A: I saw recently on uStream that the lead singer from Royz was able to full combo his own song on Expert, though.

T: That was really great, but he is more of a special case.

A: I notice now with the eAmuse system that some songs get rerated between mixes. How does that work?

T: I can't give you the exact figures we used...

A: Roughly. Do you base it off the player stats for all players on the eAmuse network?

T: Yes, sometimes, and we average the player's top score for all players on the eAmuse network. It is more detailed than the figures that are provided to eAmuse members on the Member's site. Very rarely are any of the Basic or Standard charts rerated but Expert and Challenge are tricky.

A: So many people play them?

T: Not as much as on Basic mode which is the most played. The problem with Expert and Challenge levels is that there are a lot of beginner players that play it once, fail, and never play it again and it really drops the average score. The harder the song the greater the drop in the average score, and not just because it is harder. More players try once, fail and never go back, at least to the harder difficulty charts on that song.

A: So when one song has an average score much higher or lower than the average (for that level?) it may get changed with the next release?

T: Yes, sometimes. Of course, sometimes Konami had just under or overestimated how well players would do on a song.

A: Are there any songs that surprised you for the average score?

T: Recently? Sumidagawa Karenka for sure. Similar songs with similar patterns like Unreal or one of the X-Specials (I forget which one)

A: Trip Machine Climax X-Special?

T: I think that is it. Anyway, we knew those other songs had a lower average score compared to other songs at the same level but we didn't expect it to give so many players so much trouble. Some other rerated songs like Roppongi Evolved on Double were not such a surprise and Possession Challenge on Double wasn't either, but there are not so many players that play the really difficult songs on double so it is harder to get good statistics.

A: Flower (DDR X3) was the opposite, though. Any surprises?

T: A little. I didn't think it was comparable to other 17s either but the ratings for a lot of the unlocks weren't added until the last minute or there was disagreement on the rating.

A: How about when DDRX was new. How did you decide on a 20 level system instead of 10?

T: We didn't decide. We were told to make it so. I did get to push to not simply double the old ratings, and I think that worked out much better.

A: It's x1.5 roughly, right?

T: On the harder songs this is true but even with standard deviation and other formulas,

the system started looking a bit weird for the easier songs. Overall it didn't matter, but it did shape what the players would play

A: How so?

T: Beginner players always tended to play the easiest available song on Basic. For their final stage they picked the hardest or harder ones (on Basic). It was a general progression in difficulty over the game but sometimes players picked 2 of the easiest and 1 of the harder ones or 1 easy, 2 hard.

A: Back to ratings, were any ratings changed because of a deliberate mistake?

T: Burnin' The Floor on DDR MAX 2 is the only really big one that I remember. That mix had a lot of development and scheduling problems and I think it showed in the final release at times. There were a number of newer staff around that time and it was rough in the department. One of the younger ones was having real trouble so we just put him on the Internet Ranking bonus screensaver present.

A: That was the one with the bouncing heads from Tsugaru, wasn't it? I think I might still have that backed up somewhere.

T: If you find it give me a copy. I don't know of any copies around here.

A: Wild Rush Oni Double was misrated a 1, too on Max 2 (haha)

T: Yes, though you could only play it in an oni course and not so many people played double so it wasn't quite as obvious as Burning The Floor

A: Did you like the old difficulty scale or was it just too limiting?

T: It didn't matter much to me until we defined a "10" with Max 300 and then later a number of songs were as hard or harder. We could have made an 11 or 12 but the decision by the heads was that it stays at 10 maximum. Fortunately this changed with DDR X mostly because there were a number of difficulty problems with SuperNOVA 2 and too many arguments and negative feedback came from so many of the songs rated 8 or 9 that should have been higher or too many 10s

A: So you like the X-Scale?

T: More numbers means more room to distinguish the rating. The groove radar was supposed to replace it but even though it stayed in the game, the players largely wanted a number to use for comparison. I still would have liked a larger scale that went to a larger number. Some here wanted just to revamp the difficulty scale of the original 10 levels but it just ran into too many arguments and disagreements. Also, Max 300 might have be rated a 9 under a new system like this and the team here specifically didn't want to degrade something so iconic as Max 300 and the effect it had on the players and the series.

A: Do you get many requests or see feedback asking for a first level "20" song?

T: Not really. Some wonder what it would look like but considering only a very tiny fraction of all the players would ever voluntarily choose it, there is no rush.

A: The Western community watches what goes on from time to time and I do "Where is the 20?" questions or rumors (false) about ridiculously difficult revivals from time to time. Do the Japanese fans ask the same, do you think?

T: Actually, no. I know there are a few excellent players that would love to try one but there is just no demand for very difficult songs. Like I said before, it drives players away except for the more expert players (which are outnumbered greatly by the lighter players)

A: Can I ask you about grade judgments and timing?

T: What about it?

A: Are the windows identical (completely identical) over all of the DDR mixes?

T: The definitions used for the windows are kept the same but the engine and platform on which each version of the game runs changes. The game knows how large the window is supposed to be but how the system determines what judement the timing of each step falls is up to other routines in the game.

A: So the windows are at the mercy of the rest of the game routines and how they interpret the definitions?

T: Something like that. We made the base windows the same but there are still minute differences across the different platforms like the move from System573 to Python and again to the Windows embedded platform.

A: Does this affect the size of the timing windows to any extent at all, no matter how minute?

T: If you mean any difference at all, then yes.

A: Does this make one version easier than another?

T: That is probably up to each player. The windows may feel slightly earlier or later or even smaller or larger. There is a margin of error with each judgment that differs over each mix, though this is a miniscule amount.

A: How about Marvelous timing on DDR Extreme?

T: Do you mean how it compares to the most recent versions of DDR?

A: Yes

T: My answer is the same as before, though Marvelous timing on DDR Extreme was special

A: Was it only added for Oni and Nonstop courses?

T: It was supposed to be used in regular play as well but the management here though the judgments were just too much (numerous) for the average player so they wanted to limit it to Oni and Nonstop play mostly to prevent ties. Some of the initial code still stayed in the regular game mode though. The arrow flashes on the casting were still there.

A: Is the Marvelous window from Extreme the same as the one used in the modern DDR mixes?

T: They are defined the same but the code for recognizing and interpreting Marvelous steps was changed to work specially for Oni and Nonstop mode instead of being a fundamental part of the system as it was from SuperNOVA, even though it was never utilized in regular play until SuperNOVA 2. The flashes in DDR Extreme on regular mode are from the initial work to put it into regular play but the timing for those is most likely very slightly different. I don't think anyone ever bothered comparing it.

A: How different?

T: There were some problems aligning the Marvelous window properly within the Perfect window even though there should have been no issue. In many attempts to get it working it seems like it was impossible to get a Marvelous or impossible to get a Perfect. We ended up checking the Marvelous window relative to the Perfect window beginning and end

A: Like (Perfect + x) ms at the beginning of the window and (Perfect - y) at the end?

T: It largely helped, but it was a very ugly solution.

A: So it isn't Perfect?

T: I think at the border between Perfect and Marvelous you might have cases where a Marvelous is judged as a Perfect and vice versa but that timing border is so small most users probably won't run into it.

A: So was it patched into Extreme just for Oni and Nonstop play sort of like putting "IF (Oni_mode) then"

T: The original definitions and code was already there, but we had to make some changes to get it working right, so to that extent, the Oni and Nonstop courses were a sort of special case. With SuperNOVA Marvelous timing was calculated as a base part of the system but the judgments used only went to Perfect in regular play. It is going to be slightly different from an end-user experience but even then the difference is very small

and most players won't notice such things

A: The more expert and hardcore players might, though?

T: If they are dedicated fans, they are probably more likely to I suppose.

A: Okay, about eAmuse, we all know it started being used with DDR from SuperNOVA, but didn't development start during Extreme?

T: For DDR Extreme, Konami wanted to be able to connect all of the DDR machines for events and unlockable content but having arcades buy a special router and network connection wasn't very practical at the time, especially for smaller and privately owned arcades. We were also looking at outsourcing the server and data center responsibilities which was more practical but for the astronomical prices everyone quoted, management decided to wait until we were in a position to offer it ourselves.

A: Do you have any data from the players that we can't find out ourselves from the Member's site?

T: The data we have is more raw. We have breakdowns of the difficulties of songs played as well as each score, average score for the song/difficulty and on a national level we know what songs are the most popular and what the average top score is for each song on each difficulty. We don't track how many of each step judgment the player has though on DDR X we tracked "Marvelous star" ranking which was a strict count of the number of Marvelous steps the player had, both per game and in total

A: Do you keep track of the Player's Worst? (Just amuse me)

T: We have that but that's not very useful information. My team leader argued that players that are not newcomers would just use that to laugh at what is unpopular and possibly deter players from every picking it. I think it might encourage players to play something they like to keep it out of the bottom 10 or 20 or however many they want

A: Do you know the worst 10?

T: Not for the most recent version but I do remember some of it from DDRX I think

A: Can I ask which ones just out of curiousity?

T: Let's see. Love This Feeling, AM-3P 303 Bass, So in Love, I'm gonna get you were definitely there. e-motion was there too, I believe.

A: I guess the long version songs (X-Mixes) weren't so popular?

T: Not really, unfortunately. Player feedback was that they were just too long, even with the variety of songs in the same stage. Many wanted more manageable, shorted songs. For the expert players and just the more regular players, they were happier with challenge courses and dance drill courses.

A: Is there any reason all of the high scores are wiped between mixes (except from X3 to 2013 for some reason?)

T: Even though the popular excuse we are told to give is that the system has been fine tuned or the scoring system changed and songs may not be precisely as they were with the previous mix which is true to a degree, it also tends to be related to eAmuse events and unlock conditions. For the Replicant-D-Action part of DDR X2, some unlocks required playing songs from older DDR version folders. The team leaders and management thought that if they kept the old score records, there would be less incentive to play them again, and they didn't want to specifically announce the player had to play older version songs.

A: Why was that policy changed for DDR 2013?

T: The player feedback usually contained a few comments that asked that their scores be preserved for future mixes because sometimes they are proud of some score while others want to remember their old score so they knew what to beat. The number of comments about that increased and management caved in, though many of us here had been asking for scores to be carried over from the X series anyway.

A: That's about it, I guess. My brain is frazzled but it was nice talking with you

T: Thanks, I hope I answered some of your questions.