



## Music in Code

### *Reproducing Player Piano*

#### **RICHARD:**

I once made the mistake of calling an instrument like this a pianola I know now that was wrong, can you tell me what it is?

#### **PAUL:**

Well this indeed is a reproducing player piano. Now the original player pianos were operated by somebody sitting at them, pedalling them. But of course when electricity was discovered it was possible to electrify these instruments and so there was no longer any need to sit there pedalling the bellows to actually create vacuum. But because they were electrically operated they were able to perform in a very special sort of way, because not only would the music rolls actually play the notes in the correct order but they would also be encoded so that the expression, the feeling, all the musical interpretation that you would put in as a live performer, was actually encoded onto the roll and providing the instrument was correctly set up and you played the right type of rolls on it then you would get a faithful reproduction of the artist who played the original piece.

#### **RICHARD:**

And how was the music stored?

#### **PAUL:**

Well quite simply, it was on a paper roll such as we have here. As you can see the roll is nicely perforated. (OOV) The musical programme basically being here in the centre of the roll and the expression coding were in the left and right hand margins of the roll.

#### **RICHARD (IV):**

I understand that many famous composers and pianists of the time recorded on paper rolls how did they achieve that?

#### **PAUL:**

Well quite simply they sat at a special recording piano (OOV) and the pattern of notes that they were playing would have been marked onto a master roll via an inking machine. (IV) In addition to that there were two observers who would have been making separate notes on the style of the performance, the expression, the little variations of touch that the performer, a live performer would actually put into the music. And those pieces of information would eventually be encoded onto the roll and then the whole thing would be played back to the recording artist and providing he was satisfied that that was a faithful recording of the work he had just played he would have signed it. (OOV) However looking at the number of notes that are apparently being played there it,

(IV) it does make you wonder whether the recording artist did this in one take or whether it was an early form of multi-tracking. (OOV) Well this in fact is the tracker bar where the music rolls are read and of course all the playing notes are here in the central parts of the bar and the expression coding is registered here at the extreme ends and the whole thing works on vacuum, so it's suction through the bar. The paper effectively seals the suction and the notes only play when the perforations in the paper actually expose the hole in the bar. It's a binary code system basically.

#### **RICHARD (OOV):**

Now the roll's loaded, (IV) what do you have to do before you play it?

**PAUL (IV):**

Well to set it to play automatically all I have to do (OOV) is check that the tempo is correct, set it in the play mode (IV) and switch it on.

**RICHARD (OOV):**

This is probably the closest a mechanical musical instrument's actually got, to being a recording of a performance. However unlike a recording this instrument offers a live replay of the original performance.

**CAPTION:**

Reproducing Player

Piano

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