

Figure 1 illustrates five examples of musical notation and corresponding piano roll visualizations. Each example shows a musical staff with a single note (eighth note, bass clef) and a corresponding piano roll visualization below it. The piano roll visualizations show different combinations of parameters (pitch, duration, volume, etc.) that result in the same musical notation.

- Example 1:** The piano roll shows a single note with a duration of 1.0, a volume of 1.0, and a pitch of 44. The piano roll parameters are: C (1.0), D (1.0), A (1.0), Bb (1.0), Db (1.0), Eb (1.0), F (1.0), F# (1.0), Ab (1.0), and Bb (1.0).
- Example 2:** The piano roll shows a single note with a duration of 1.0, a volume of 1.0, and a pitch of 44. The piano roll parameters are: C (1.0), D (1.0), A (1.0), Bb (1.0), Db (1.0), Eb (1.0), F (1.0), F# (1.0), Ab (1.0), and Bb (1.0).
- Example 3:** The piano roll shows a single note with a duration of 1.0, a volume of 1.0, and a pitch of 44. The piano roll parameters are: C (1.0), D (1.0), A (1.0), Bb (1.0), Db (1.0), Eb (1.0), F (1.0), F# (1.0), Ab (1.0), and Bb (1.0).
- Example 4:** The piano roll shows a single note with a duration of 1.0, a volume of 1.0, and a pitch of 44. The piano roll parameters are: C (1.0), D (1.0), A (1.0), Bb (1.0), Db (1.0), Eb (1.0), F (1.0), F# (1.0), Ab (1.0), and Bb (1.0).
- Example 5:** The piano roll shows a single note with a duration of 1.0, a volume of 1.0, and a pitch of 44. The piano roll parameters are: C (1.0), D (1.0), A (1.0), Bb (1.0), Db (1.0), Eb (1.0), F (1.0), F# (1.0), Ab (1.0), and Bb (1.0).

[illegible]



