P: **Example 1**

K = b T = 12/8 F+1 QJ G F C+2 CR A+2 QJ F+1 E F R CR

Example 2 not encoded

Q: **Example 1**

23!G !K1- !M12:8 (28ED 30ED 29ED) 33QD 31ED etc.

!G !K- !M12:8 (9 30 9) 33Q 31E (9 8 9) RQ 9 / (30 9 30) 26Q 30E (31 30 9)

!G !K- !M12:8 9E(10 9) 13Q 11E 9(8 9) RQ 9 / 10(9 10) 6Q 10E 11(10 9)

!G !K1- !M12:8 (9 30 9) 33Q 31E (9 8 9) RQ 9E / (30 9 30) 6Q 30E (31 30 9)

* DARMS encoded by Harry Lincoln, Bruce McLean, Stephen Dydo and Stefan Bauer-Mengelberg

Example 2

!F !MC| !&, 4W 5Q 6 7 5 / 6 4 8W 7HJ / 7 6 5. Q / 4W &,@Glo-,~/2WH.,ri-,~Q,a$ &$

!F !MC/ 4W,@Glo-$ 5Q 6 7 5 / 6 4 8W 7HJ / H 6 5. Q,@ri-$ / 4W,@a$

!F !M 4W,@ GLO-$ 5QD 6 7 5D / 6 4 8W 7HJ / 7 6 5.D QD,@RI-$ / 4W,@A$

* DARMS encoded by McLean, Dydo and Bauer-Mengelberg

Letter Q shows four different ways to encode the musical examples using DARMS. The design of DARMS actually permits many types of shorthand representation. The version submitted by Harry Lincoln for example 1 illustrates the unabridged or "canonical" version of the DARMS code. The other versions represent various possible condensations of this code. DARMS also offers considerable flexibility in the order of data entry. For the second musical example, Bruce McLean has chosen to enter the text after encoding the complete musical phrase, whereas Stephen Dydo and Stefan Bauer-Mengelberg have chosen to enter the text simultaneously with the music.

The flexibility of DARMS, as illustrated in these examples, is one of its strong points. However, the variety of representations made possible by this feature has made it difficult to write application programs which accept all versions of DARMS. Bruce McLean has been working on a program which will solve this problem by converting all shorthand and multiple pass representations into a three-dimensional data structure, which can then be collapsed down into the canonical version of the language.

Most of the other systems shown above fall into the category of music *codes* rather than music *languages*. They reflect the individual requirements of their designers and for the most part contain only the information needed for specific projects [see comments under F and H]. In some cases, researchers are interested only in melodic contours and ignore rhythmic attributes such as duration, rests and repeated notes [systems A, C and E]. Some encoding systems deal only with pitch class and ignore register or range [systems C and I]. Some systems are concerned only with absolute duration [H and N], while other systems are interested in the structure of ties [systems B, D, F, G, I, K, M, O, Q]. Some systems show a further interest in note groupings for beaming or other purposes [systems D, M and Q]. System D is particularly noteworthy in this respect, since in the interest of representing a particular rhythmic pattern, it actually inserts a tie (2nd example, 2nd measure) into the representation.