FINAL TEST
COMPUTERS IN THE CLASSROOM
U.A.S.

Name.....MARTIN BALESTLE.....
Date.....SEAT 5TH 1985.....

A+ Paper!

A+ Cool

Answer the following questions on a separate sheet of paper. Staple this cover sheet onto them, and submit the completed test to Bill Johnston by the end of next week.

1. ✓ Make a program using LOGO that can be used to explain, reinforce or teach some concept to your class. If you feel that the grade you teach limits your ability to fully explain the question, pick any grade level that can apply.

2. ✓ Pick a program that you have evaluated and explain how you could use it for or in your class. Include such things as:
a) what concepts does it teach or reinforce?

b) how much teacher interaction is necessary?

c) what age level would you use it for?

d) what are the strong characteristics of the program?

e) what motivational factors are built into the program?

f) does it have any weaknesses and if so how would you correct them if you could (how would you make it better?)

3. ✓ Pick one bad program and explain why you came to that conclusion. You may wish to use some of the criteria in question number 2, to answer your question.

4. ✓ Demonstrate your ability to use the BANK STREET WRITER by answering this question using the word processor.

--Explain how you could incorporate the BANK STREET WRITER into some part of your curriculum.

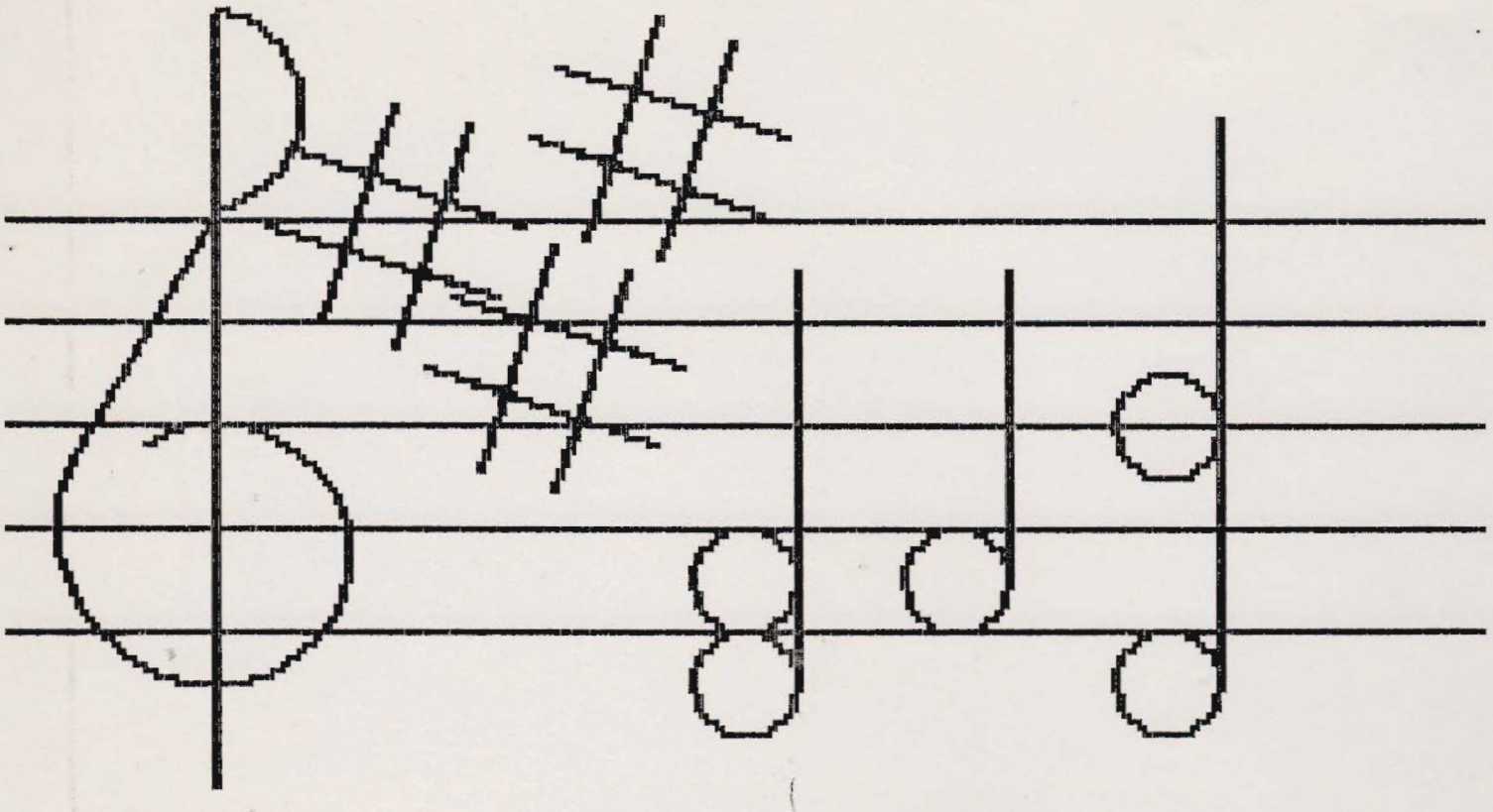
LOGO PROJECT

The enclosed LOGO programs represent a rather primitive coding of a very interesting project that will be described throughtout. The programs have been included to produce some visible output to help visualize potentials. The final system would show a music score either by presenting several measures containing different rhythm patterns or four or fives measures from a major Concerto, including the treble clef and either one to seven sharps or one to seven flats. The project would use the following Logo statements:

FD, PU, PD, SETPOS	to draw the score
CIRCLER, CIRCLEL	to draw whole notes, half notes, etc.
ARCR, ARCL	if legato playing is used (or ties)
SHARP, FLAT	procedures that will enable the progression from G major (1 sharp) to C# major; using FLAT to proceed from B (1 flat) to Cb (7 flats)

HOW THIS MIGHT WORK (brief description): at the beginning, staff will show neither sharps or flats,(C major is presented); either manually or by program, turtle is placed where the first sharp (flat) would be normally placed, SHARP procedure is activated, and voila, you have your first (G major) key signature. Proceeding in the same fashion, the whole key series can be displayed. To improve ease of handling when performing the initial student briefing a collection of ready-made demo-tools might prove useful, such as the following predefined procedures (you can suggest them later for student projects):

Procedure	SIGNATURE :key	displays a given key signature
Procedure	SHARP	
Procedure	FLAT	display either a sharp or flat in any - musically allowable- staff position
Procedure	CHORD :key	display a given chord
Procedure	SCALE :key :mode	display a given scale (both key signature and progression) either major, minor, etc.



Super!

This system could be:

* combined with LOGO Music to provide integral instruction

* expanded to display several parts at the same time (i.e. string quartet: 2 vns, va & cello), if multiple colors are added, this could be used to show the different melodic paths of each instrument, thereby providing harmonic analysis

Once wholly developed, it would be used to teach/reinforce the following:

Music Theory concepts, in particular:
- Key Signatures (incremental use of SHARP & FLAT procedures)
- Aural Intervals supported by Visual Intervals
- Figures and Rhythm Patterns
- Orchestra Tranposition
- Scales (incremental use of NOTE :pitch :length procedure NOTE accepts pitch and value of note and draws it accordingly on the screen
- Music Chords

Geometry concepts, in particular:
- Parallel lines
- Circles
- Arcs

Math concepts, in particular:
- Division and Counting, i.e. 1 whole note = 2 half notes
  1 eighth note = 1/8 quarter note

The use of the LOGO Language itself stressing a truly modular system build-up based on several modules: STAFF, SHARP, FLAT, CHORD, SCALE, etc.

This class project - maybe spanning several periods - could be used in conjunction with ready-made software, such as MECC Music Theory program. The MECC disk would be used for instruction and the LOGO programs could be used for review and reinforcement.

```
£?POTS
TO STAFF :SIZE
TO NOTE :SIZE
TO SHARP :SIZE
TO TREBLE
TO FINAL


?PO "STAFF
TO STAFF :SIZE
HT
CS
PU
SETPOS #0 70#
REPEAT 5 #SETH 90 PD FD 300 PU SETH 180 FD :SIZE#
END



?PO "NOTE
TO NOTE :SIZE
SETHEADING 90
CIRCLER :SIZE
PU
SETX XCOR + :SIZE
SETY YCOR - :SIZE
SETHEADING 0
PD
FD :SIZE * 6
END



?PO "SHARP
TO SHARP :SIZE
FD :SIZE
BK :SIZE / 3
RT 90
BK :SIZE / 3
FD :SIZE
BK :SIZE / 3
RT 90
BK :SIZE / 3
FD :SIZE
BK :SIZE / 3
RT 90
BK :SIZE / 3
FD :SIZE
END
```

```
?PO "TREBLE
TO TREBLE
PU
SETPOS Ps-100 -20ª
SETH 270
PD
ARCR 30 120
FD 55 RT 45
ARCL 20 150
PU
SETPOS Ps-100 -20ª
SETH 90
PD ARCL 25 210
PU
SETPOS Ps-100 -20ª
SETH 0
PD
FD 130
BK 150
HT
END


?PO "FINAL
TO FINAL
HT
PU
SETPOS Ps0 70ª
STAFF 20
PU
SETPOS Ps0 10ª
PD
NOTE 10
PU
SETPOS Ps0 -10ª
PD
NOTE 10
PU
SETPOS Ps40 10ª
PD
NOTE 10
PU
SETPOS Ps80 40ª
PD
NOTE 10
PU
SETPOS Ps80 -10ª
PD
NOTE 10
PU
SETPOS Ps-80 50ª PD RT 18 SHARP 45
PU
SETH 90
SETPOS Ps-35 100ª PD RT 18 SHARP 45
PU
SETH 90
SETPOS Ps-55 55ª PD RT 18 SHARP 45
TREBLE
END
```