

*Music Writer*TM



128/+2/+3 SPECTRUM
Three part score writing system

GARRY ROWLAND

REFERENCE EDITION

SIDE

1

**DISCTFR - loader & +3 disc transfer
Music Writer program**

IMPORTANT: Please reset computer before use.
Make sure tape is wound to the beginning
before loading.

Note that Music Writer will only attempt to
transfer program to disc if +3 DOS is present
and the program has been loaded by name.

SIDE

2

UTILITY - XTN program

MSC files:

DEMO · BOLIVIA · BRITAIN · INDIA

JAPAN · MEXICO · NIGERIA · OZ

SUDAN · TIBET · TURKEY · USA · USSR

IMPORTANT NOTICE FOR +3 USERS

Some +3 Spectrums have a hardware fault that creates distorted sound from the TV. Acceptable results can be obtained by taking sound signal from either the SOUND output socket or the PERITEL socket (refer to +3 manual). The output will drive 'Walkman' amplifier speakers or the TANDY amplifier speaker (cat. no. 277 1008C).

*Music Writer*TM

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Kingdom RM9 5NY

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VOICE FILE and SONG FILE sheets.

The file format of MUSIC WRITER's MSC files is placed in the public domain
and files using this format may be used by other software houses or program-
mers to create MUSIC WRITER compatible software.

Acknowledgements:

The demo file contains three arrangements of 'The Blue Tail Fly' These are
loosely based on the traditional version given in Tom Glazer's book 'A New
Treasury of Folk Songs'.

The song 'Barbara Allen' is also based on a version given in 'A New Treasury of
Folk Songs'.

The following songs have been taken from 'Folk Songs of the World' by kind
permission of the author, Charles Haywood.

The Overlander – Australia
De Blanca Tierra Bolivia
Pinnal Kolattani – India
Kochaé-Bushi – Japan
Las Chaparreras – Mexico
Yeke, omo mi Nigeria
Kui Mina Alles Noor Veel Olin – Soviet Union
Gbodi – Sudan
Seba Alaso Trodje – Tibet
Üsküdar – Turkey
John Henry – USA

The melody, and in some cases the bass line, have been taken directly from the
book. The additional parts have been added by G. Rowland generally using the
suggestions given in the book by Charles Haywood.

The software was written over a period of sixteen months and partly financed by
the MSC's Enterprise Allowance Scheme.

The software was written using HiSoft Devpac on a Spectrum +3 and debugged
using Multiface 3. Artist II and Cardex DT² were also used for graphic design
and internal documentation.

Typesetting by Words & Spaces using WASP code. Body text set in 9pt
Helvetica regular using 2pt line leading.

INTRODUCTION

*Music
Writer™*

MUSIC WRITER is very easy to use. You can make MUSIC WRITER do what you want by moving a pointer to an icon and pressing a key. An icon is a picture or symbol that represents an instruction for the computer to do something. MUSIC WRITER also displays text and numbers on 'buttons' these buttons are also called icons in this manual. This manual describes what each icon does. A short tutorial follows most icon descriptions. The tutorials explain the music notation relating to the icon. The complete beginner is advised to read all the tutorials in number order first.

The +2A referred to in this manual is the black +2.

LOADING MUSIC WRITER

The version supplied will run on all 128K Spectrum computers. Select 'loader' on the Spectrum's menu and start the tape. Spectrum +2A and +3 will not need to load all the code on tape. Stop the tape when the MUSIC SHEET screen appears.

The +3 (and +2A with added drive) can transfer the program to a 3" disc. Enter into BASIC and type load "t:discfr". When the program has loaded you will be asked to insert a disc into the drive. Make sure the 'WRITE PROTECT' hole is covered. You will then be given a 'READY TO FORMAT' message. Press a key to create your MUSIC WRITER disc. It is important to use a blank or unwanted disc as previous data will be erased from the disc.

To load MUSIC WRITER from disc: Select 'loader' on the Spectrum's menu. The program can also be loaded from BASIC by typing load "*".

OTHER MEDIA

A 48K RAM disc and tape filing is available on the 128 and +2 Spectrum. If a 'snapshot' facility is available, the RAM disc (drive M) may be used for all filing during a session and the program saved along with the RAM disc at the end of the session. Permission to 'snapshot' MUSIC WRITER applies only to copies for the owner's personal use.

The +2A and +3 Spectrum have a 46K RAM disc.

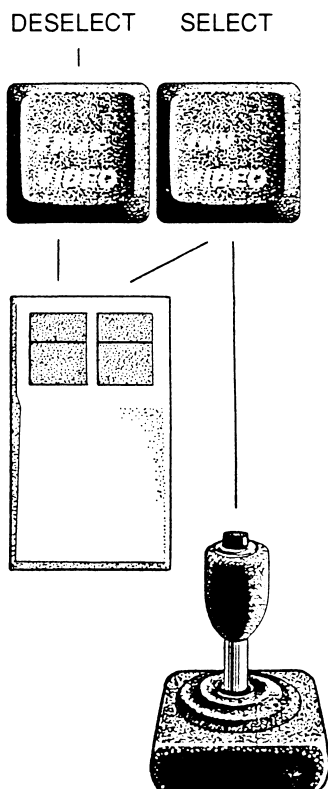
USING MUSIC WRITER

The pointer is moved using the cursor keys. There is also the option to use joystick or Kempston compatible Mouse. It is important to note that the Kempston and Data! Mouse, along with some other interfaces that you may have connected, will cause the program to crash when the PLAY icon is selected. This is caused by missing control lines on the interfaces. A hardware fix that will enable the interfaces to work with all software is available on request.

Icons are turned on and off by pointing to them and pressing the SELECT key. The INV VIDEO key is used for SELECT. Pressing the DESELECT key allows you to end most tasks selected by icons. The TRUE VIDEO key is used for DESELECT. These keys also work when Mouse or joystick is used. The fire button on a joystick doubles as a SELECT key. The Right hand button on a Mouse is SELECT, the lefthand is DESELECT.

Icons have a white design on a coloured background when they are 'on'. Icons that are 'off' have a black design on a coloured background. Some icons display a status which can be changed: key, bar number etc.

Some icons turn on mini screens called windows. To exit from a window turned on by mistake, point to the window and press DESELECT. This does not work with the full screen 'windows'. The EDITOR icon must be used to flip between these windows. The window used for entering numbers can only be turned off by pressing ENTER.



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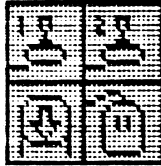
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MUSIC SHEET deals with the structure of the score and the order in which bars are played. MUSIC SHEET displays all three staves of up to four bars. This is done using very small notes. The demisemiquaver is shown only as an upright stroke. Details within each bar are left to the BAR EDITOR, so rests and ornamentation are not included in the MUSIC SHEET display. Rests are displayed as spaces between notes.



1 DEVICE ICONS

The kind of input device you want to use can be selected on the MUSIC SHEET window. Pressing key 'K' will select the CURSOR KEY icon without having to use the current input device.

On the Spectrum 128, Joystick 1 uses the Interface 2 J/S1 interface and Joystick 2 uses the Kempston joystick interface.

On the Spectrum +2, Joystick 1 uses joystick 1 socket and joystick 2 uses the Kempston joystick interface.

Both joystick sockets are used on the Spectrum +2A and +3.



2 SELECT PART ICON

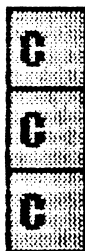
MUSIC WRITER allows three part music to be created and played. All three parts do not need to be used and any one, or even all three, can be turned off. Turning a part off does not delete or alter a part, it just turns the sound off for that part. This is useful if a few bars are sounding messy and you want to find which part is causing the problem. It should be noted that the block editing facilities operate on all three parts whether they are on or off.

2.1 THE THREE PART SCORE

The simplest piece of music may consist of just a melody. One note played at a time – a single part for one vocalist or instrument. Adding another part will liven things up a bit. This part can be sung by another vocalist or played on another instrument. The second part should harmonize with the first part. This can be done by taking the notes of both parts from the same chord. A table of chords can be found in the appendix.

You can keep adding parts in this way until you have a piece of music that requires an orchestra to play it. The Spectrum can only play up to three notes at once, so MUSIC WRITER has only three parts. The first two parts both cover two octaves from middle C upwards. The third part covers two octaves downwards.

Each part can be played separately, as if by a different player. The kind of 'instrument' played depends on the voice selected. If you want to, you can change the voice on each note. MUSIC WRITER has a bank of ten voices which can be edited and saved for use in another session.



3 KEY SIGNATURE ICON

This turns on the KEY window. The KEY window is used to select the key for the BAR EDITOR. To select a key, point to the desired key and press SELECT. This does not affect any of the bars in MUSIC SHEET.

The BAR EDITOR uses the key displayed on the KEY SIGNATURE icon. Many MUSIC SHEET icon actions display the key of the current bar on the KEY SIGNATURE icon.

The MAJOR/MINOR icon selects the mode you require. The minor keys are what is known as the relative minor. Sharpen the 7th note in the scale for harmonic minor. Sharpen 6th and 7th in a rising scale only for melodic minor.

C♭	C	C♯	D♭	D	
E♭	E	F	F♯	G♭	B
G	A♭	A	B♭	B	

3.1 PITCH

Pitch is the frequency at which a note sounds. Each pitch is named by a letter (A-G) and an octave number. A4 is 440 Hz (cycles per second). 'A' is the pitch name and '4' is the fourth octave. A5 is an octave higher. The pitch name is the same, but it is now at the fifth octave. A5 is 880 Hz, double the frequency of A4. C4 is commonly known as middle C and is the middle note on a piano. The pitch names are usually written without the octave number. If you see a pitch name with a number greater than six, it is likely to be a chord name with an added note. Chords take the same name as the pitch they are based on. See appendix for more about chords.

3.2 THE STAVE

A stave can be thought of as a graph consisting of five lines. Placing a mark somewhere on this graph indicates a certain pitch/frequency. The lines and the spaces between them represent the named pitches A-G. These pitches are duplicated at other octaves, so a clef is required to indicate which range of octaves the stave covers.

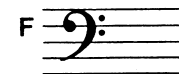
The G clef sits on the bottom line the treble stave with the bottom half curling around the second line up. This sets the second line at pitch G4. The treble stave covers octaves four and five.

The F clef hangs from the top line of the bass stave. The two dots set the second line from the top at F3. The bass stave covers octave three and two. MUSIC SHEET uses two treble staves and one bass stave.

MUSIC SHEET only displays the clef at the beginning of the file. Unfortunately, MUSIC SHEET does not allow clefs to be changed or moved.

Sometimes notes need to be placed at a pitch that takes notes above or below the five lines of the stave, so extra lines are added to aid identification of pitch. These lines are only long enough to mark the pitch of the note above or below the stave. The lines are called leger lines and they are not shown on MUSIC WRITER staves.

The range of two octaves for each stave can be extended to four octaves by creating a voice which has a pitch an octave higher or lower than is written. This is explained in section F. In written music this is indicated by an 8ve... sign over a note or group of notes.



3.3 SCALES

Western scales are based on what's known as the chromatic scale. The chromatic scale divides an octave into twelve equal intervals called semitones. The major scale uses eight of these semitones spaced as - TONE (=two semitones) TONE SEMITONE TONE TONE TONE SEMITONE (starting at the lowest note). Like this.

SEMITONE	INTERVAL	SCALE DEGREE
12	8	OCTAVE (upper tonic)
11	7	LEADING NOTE
10		
9	6	SUBMEDIANT
8		
7	5	DOMINANT
6		
5	4	SUBDOMINANT
4	3	MEDIANT
3		
2	2	SUPERTONIC
1		
	1	TONIC (key note)

These are called diatonic scales. The same intervals are used for all major keys, different intervals are used for minor keys. Roman numerals are commonly used to name the intervals. If the frequency for C4 (middle C) is used the scale degrees will have the following pitch names:

SEMITONE	INTERVAL	SCALE DEGREE	PITCH NAME
12	VIII	OCTAVE (upper tonic)	C
11	VII	LEADING NOTE	B
10			
9	VI	SUBMEDIANT	A
8			
7	V	DOMINANT	G
6			
5	IV	SUBDOMINANT	F
4	III	MEDIANT	E
3			
2	II	SUPERTONIC	D
1			
	I	TONIC (key note)	C

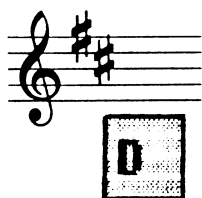
MUSIC SHEET



The distance between each pitch is always the same. The distance between the intervals must also remain the same and if you use the frequency for D as the starting point, this happens.

SEMITONE	INTERVAL	SCALE DEGREE	
12	VII	OCTAVE (upper tonic)	D
11	VII	LEADING NOTE	?
10			C
9	VI	SUBMEDIANT	B
8			
7	V	DOMINANT	A
6			
5	IV	SUBDOMINANT	G
4	III	MEDIANT	?
3			F
2	I	SUPERTONIC	E
1			
	I	TONIC (key note)	D

The 3rd and 7th interval have a pitch that is not named on the staff! This problem is solved by giving the pitch at the 3rd and 7th interval the same name as pitch C and F. A sign is used to indicate that the pitch is actually higher than written. This sign is called a sharp. Other keys will need to show that the pitch is lower than written. A sign called a flat is used to do this. Using sharps and flats to indicate a shift in the pitch enables one staff to be used for all keys.

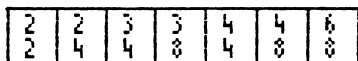


In written music, each new row of staff lines starts with a clef and then the key signature. The key signature uses sharps and flats to show which parts of the staff have changed in pitch. MUSIC SHEET does not display the key signature. Instead the name of the key being used for the part is displayed on the KEY SIGNATURE icon. If you are copying from sheet music, you can look up the key name in the list of key signatures in the appendix.



4 TIME SIGNATURE ICON

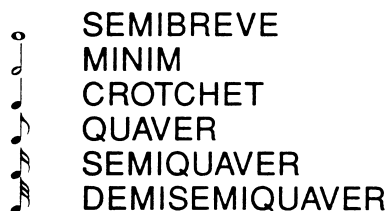
This icon turns on the TIME window. This window is used to select the time signature for the BAR EDITOR. Point to the desired time signature and press SELECT. This does not affect any of the bars in MUSIC SHEET.



The BAR EDITOR uses the measure displayed on the TIME SIGNATURE icon. Many MUSIC SHEET icon actions display the measure of the current bar on the TIME SIGNATURE icon.

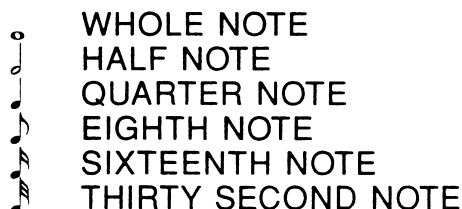
4.1 NOTES

A note gives the duration of a sound. When a note is placed on the staff it also marks where the pitch of the sound is. There are six commonly used notes.



SEMIBREVE
MINIM
CROTCHET
QUAVER
SEMIQUAVER
DEMISEMIQUAVER

The American names for these notes reveals the relationship between each note:



WHOLE NOTE
HALF NOTE
QUARTER NOTE
EIGHTH NOTE
SIXTEENTH NOTE
THIRTY SECOND NOTE

You can now see that there are four crotchets in a semibreve, sixteen semi-quavers in a semibreve and so on.

Just stringing notes of different lengths together is not going to create very satisfying music. Not unless you're very clever about it. What you need is a regular beat. Something to build on. The most common note chosen to represent this beat is the crotchet. Sometimes another note may be chosen as the beat note, a minim or a quaver for example.

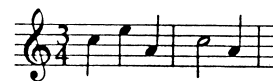
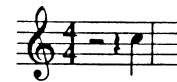
4.2 TIME SIGNATURES

A regular beat sounds a bit mechanical, so some notes are played a bit louder to create a rhythm. For example, try counting up to four over and over again slapping the palm of your hand with just two fingers. First do this with a steady beat, then try it again. Only this time, slap your hand with four fingers everytime you count the first beat.

Like this. 1 – 2 – 3 – 4 – 1 – 2 – 3 – 4

This beat pattern is called 4/4 time. The top number of this time signature tells you that there are four beats. The bottom number tells you that the beat note is a crotchet (think quarter note)

In written music these two numbers are placed at the start of each new stave, just after the key signature.



4.3 BARS

The beats are also measured off with a vertical line across the stave. This divides the stave into units called bars. A bar is sometimes called a measure. The first beat in a bar or measure is the one that's usually played slightly louder.

In written music, a bar may contain less beats than is shown in the time signature. This is usually at the start. In MUSIC WRITER, the bar must always contain the number of beats given in the time signature.

The number of beats in a bar should not be confused with the number of notes in a bar. Each part in the bar (MUSIC SHEET uses one stave for each part) must contain the EQUIVALENT of the number of beats in the bar. For example, if there are three crotchet beats the part could contain one minim and one crotchet (two notes that are equal to three crotchet beats).

Not all the time signatures are available on MUSIC WRITER, but most of the commonly used ones are.

4.4 SIMPLE AND COMPOUND TIME

There is one time signature that could cause some confusion. That is six eight time. This does not mean that there are six quaver beats to the bar! The first six time signatures in the TIME window are what's known as simple time. Simple time indicates that the beat notes can be simply divided into two, which all the notes do naturally.

Compound time divides the beat notes into three. This should not be confused with TRIPLETS which are three notes played in the same time as two. Notes cannot be divided into three, so the beat note is multiplied by one and a half times. This is easily done by dotting the note. A dot after any note adds half its length to it. A dotted crotchet can be divided into three quavers (1 quarter note + 1 eighth note = 3 eighth notes).

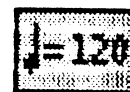
The last time signature on the TIME window is compound time. There is an easy way to check if a time signature is compound time. Just divide the number of beats by three, if the result is a whole number greater than one it is compound time.



5 TEMPO ICON

The TEMPO icon turns on the NUMERIC INPUT window. This displays the range of numbers that can be entered. Changing the tempo does not affect the bars in MUSIC SHEET.

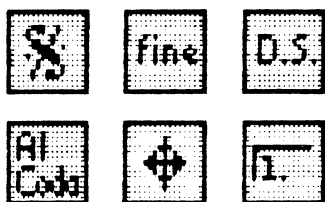
The BAR EDITOR will use the tempo displayed on the TEMPO icon when a bar is copied. Many MUSIC SHEET icon actions display the tempo of the current bar on the TEMPO icon.



5.1 TEMPO

The tempo gives the actual duration of the beat note by indicating the number of beats per minute. MUSIC WRITER always uses a crotchet beat for tempo.

Sometimes tempo is given only as a broad description such as 'allegro' or 'fast'. A table in the appendix gives the equivalent crotchet beats per minute for speed descriptions.



6 BAR SIGN ICONS

Various bar signs are used to indicate the order and number of times bars should be played. MUSIC WRITER allows you to use eight of the most useful ones. Selecting a SIGN icon sets the current bar with that sign. If the sign is already present in the current bar, it is deleted. All signs, apart from volta, may only be used once.

D.S. Al coda and D.S. Al fine are selected by first putting a D.S. sign in the bar, then choosing either the coda or the fine sign. Apart from volta, these are the only two signs that can be combined. If the CODA or FINE is not present, 'D.S. Al ?' will be displayed to show that CODA or FINE is missing.

The VOLTA icon turns on the NUMERIC INPUT window. Simply enter the number of the 'times' that the bars are to be played. When a volta already exists on the current bar, entering the same number will delete that 'time' and entering a different number will add that 'time' to the volta bracket. Bars may be repeated upto five times. Volta can be used with all other signs except segno.

D.C. and BRIDGE are not available. D.S. can replace D.C. if a segno is placed on the first bar. BRIDGE is usually a section of around eight bars that may be shown separately from the main piece, but is to be played at a certain point. Sometimes it is shown where it is to be played, but is to be played only one of the 'times' the bars are passed through. This section must be copied to wherever it is to be played or the piece re-written to avoid using bridge.



6.1 SEGNO

Segno is Italian for 'sign'! It is simply used to mark the bar to be returned to after a bar containing D.S. has been played.

Fine

6.2 FINE

This marks the end of a piece. MUSIC WRITER stops if 'D.S. Al Fine' has already been 'played' at some time, otherwise the mark is ignored.

D.S.

6.3 D.S.

This is short for Dal Segno. This means that instead of playing the next bar, the player should return to the bar containing the Segno and continue from there. D.S. bar should have double barline.

al coda

6.4 AL CODA

This is an instruction for the player to play the coda instead of the bars following the al coda. This instruction is ignored if 'D.S. Al Coda' has not yet been 'played'

D.S. al coda

6.5 D.S. AL CODA

After playing a bar with this sign, the player returns to the bar with a Segno and continues until Al Coda is found. Then the Coda is played and the piece ends. Bars with this sign should have repeat mark or double barline.

D.S. al Fine

6.6 D.S. AL FINE

This is a variation of D.S. Al Coda. The player returns to the Segno as before, but now only continues as far as Fine. Where Fine ends the piece. Bars with this sign should have repeat mark or double barline.



6.7 CODA

This marks the start of a number of bars that are to be played only at the end of piece. The Coda bars should actually be placed at the end of the piece. A Coda is used when repeated sections require an end that can't follow on from where the end is required – that is, there's something else there!

6.8 VOLTA

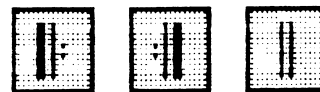
This means 'turn' or 'time' Underneath the Volta bracket are the times a section is to be played. The bracket marks the first bar in the section and a repeat mark or double barline marks the last bar in the section. MUSIC WRITER counts every time it plays a section between repeat marks. If the count matches the 'time' in the Volta bracket, the 'volta section' is played. If the count does not match, the section is ignored.



If there is a D.S. Al 'something' at the end of the section, it is only acted on when the count matches the highest 'time' in the Volta. This replaces the written instruction 'D.S. last time' which may be found on some scores.

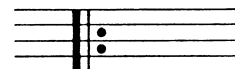
7 BARLINE ICONS

There are three BARLINE icons. Repeat mark (left), Repeat mark (right) and double barline. These are put in the bars in the same way as the bar signs. There is no icon button for the barline itself as the barline is created when the BAR EDITOR puts a bar into MUSIC SHEET



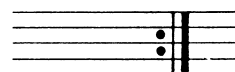
7.1 REPEAT MARK (left)

This marks the start of bars to be repeated. In written music a repeat mark may appear at any point within a bar MUSIC SHEET always places this mark at the beginning of a bar.



7.2 REPEAT MARK (right)

In written music the repeat marks are used to bracket the bars to be repeated. Unless a volta is used, the bars are only repeated once MUSIC SHEET always places this mark at the end of a bar

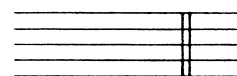


Repeat marks should not be 'nested' but paired off This is nesting – '(())' This is pairing off – '() ()' A 'right' repeat mark by itself will cause MUSIC SHEET to return to the beginning.

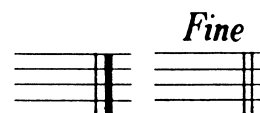
Both repeat marks may be used to end a volta. The 'left' repeat mark should only be used if the section that follows is repeated.

7.3 DOUBLE BARLINE

The double barline marks the end of a section but not the end of the piece. For example, the last bar in a volta section that is not repeated may be followed by another section with its own repeated bars and voltas. MUSIC SHEET always places this line at the end of a bar



On some scores you may find that the second line is thicker. This indicates the end of the piece This variation is not available on MUSIC SHEET If you want to indicate the end, a double barline with FINE may be used

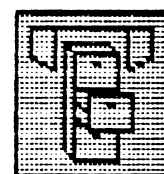


There are examples of how barlines and signs affect playing order in the appendix.

8 FILE ICON

This sets the directory name to 'MSC' and then turns on the FILE window 'MSC' is the +3 type field used for MuSiC files.

It is important to note the position of the BLOCK MARKERS before turning the FILE window on. The position of the BLOCK MARKERS doesn't matter if a file is to be erased from a disc.



8.1 LOADING MSC FILES

If there is no file present (BLOCK MARKERS =0) then simply turn on the FILE window If there is a file, set the markers to point to the bars you want to replace with the new file. For example: If a piece is twenty four bars long and you don't want the middle eight bars, set the START MARKER to bar nine and the END MARKER to bar sixteen. The new file will be loaded between these bars. If the new file is ten bars long, the END MARKER will be set at bar eighteen and the new file will be twenty six bars long

Most signs can only be used once and any signs duplicated outside the new block are deleted. The MUSIC SHEET text header will be replaced by the header from the loaded file if none of the old file remains.

The block will be deleted if a loading error is reported while replacing the bars.

8.2 SAVING MSC FILES

Only the bars between the BLOCK MARKERS are saved. If the START MARKER is set to bar one and the END MARKER is set to the last bar, the MUSIC SHEET text header is also saved.

9 XTN ICONS

This is provided for future expansion It sets the directory name to XTN and turns on the FILE window An eXTeNsion file is a short program that can load



into the space allowed for it. This program can then be turned on by selecting the XTN BLOCK icon.

Most extension programs will probably act on the bars between the BLOCK MARKERS.



10 MEMORY USE ICON

This icon displays the amount of memory used and the amount free in kilobytes (1000's) This is the same format as the disc directory which makes things useful for disc users who may want to know if there is room on the disc for another file.



11 EDITOR ICON

This icon is present on MUSIC SHEET and BAR EDITOR windows. The EDITOR icon swops windows. Changing windows does not affect the contents of either window



12 MUSIC SHEET TEXT ICON

This turns on the TEXT window. Each file may contain a text header of up to six lines of text or 240 letters and spaces (whichever is greater) This may be used to add a title and comments. The header is only saved when the block markers point to the start and end of the file

The TEXT window provides a simple word processor for entering text. The only facilities available are DELETE and ENTER.

Editing and playing are handled by the BLOCK icons. All operations except PLAY act on all parts (on or off)



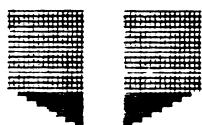
1 CURRENT BAR ICON

This turns on the NUMERIC INPUT window. Enter the bar number of the bar you want. The current bar is always displayed over the light blue panel. The bar numbers are displayed over the top of each bar. The bar number of the current bar falls on top of the CURRENT BAR icon. The KEY SIGNATURE, TIME SIGNATURE and TEMPO icons are all set by the new current bar



2 SCROLL ICONS

The left/right arrows moves the score one bar left or right. This has the same effect on the SIGNATURE and TEMPO icons as the CURRENT bar icon.



3 BLOCK MARKER ICONS

The BLOCK MARKER icons don't actually move. The bar number of the bars they point to is displayed on them. The START MARKER is on the left of the current bar and the END MARKER is on the right. The BLOCK MARKERS turn on the NUMERIC INPUT window. Enter the bar number to change the marker pointer



4 RESET OUT ICON

This moves the BLOCK MARKERS (bar numbers) to the beginning and the end of the file. The CURRENT BAR icon is also set to bar one. The KEY SIGNATURE, TIME SIGNATURE and TEMPO icons are all set by the new current bar



5 RESET IN ICON

This sets both BLOCK MARKERS (bar numbers) to the current bar.



6 COPY ICON

The COPY icon makes a copy of the bars between the BLOCK MARKERS. This copy is inserted after the current bar. An error is reported if there is no room for the copy. The first bar in the copy becomes the current bar. The KEY SIGNATURE, TIME SIGNATURE and TEMPO icons are all set by the new current bar



7 DELETE ICON

This deletes the block of bars. If the current bar was in the deleted block, the first bar outside the block becomes the current bar – the KEY SIGNATURE, TIME SIGNATURE and TEMPO icons are all set by the new current bar



8 PLAY ICON

The PLAY icon plays the marked block. Only those parts turned on are played. Play ends when the END MARKER is found or, if D.S. al fine used, when FINE is found. Play also ends if a bar sign or repeat mark takes the order of play outside the BLOCK MARKERS. Play can be stopped at any bar by pressing BREAK.

The current bar playing is always finished before a BREAK or error report is made. The bar at which PLAY stops becomes the new current bar. The KEY SIGNATURE, TIME SIGNATURE and TEMPO icons are all set by the new current bar

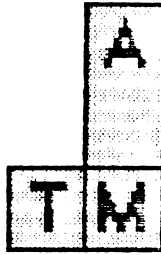
This window takes care of disc and tape file handling

1 DRIVE SELECT ICONS

The icons displayed depends on the Spectrum you have. The 128, +2 and +2A models only display drive M and T. The Spectrum +3 displays drive M, T and A. Drive B icon is displayed when a second drive has been added. The +2A display is the same as the +3 when drive B is added. As there is no internal drive on the +2A, drive A is not used.

Drive T selects tape operation.

Drive M is a RAM disc. Some memory is set aside for files saved as if on disc, but turning the computer off will erase these files. The files must be loaded into MUSIC SHEET before they can be saved permanently to tape or disc.



2 DIRECTORY ICON

This icon does nothing if drive T is on. DIRECTORY lists all the files with a matching field type (MSC, XTN or VOX) and displays the field type along with the amount of free disc space on the DIRECTORY icon.

When there are more than nine files on the disc, selecting the DIRECTORY icon again displays the next nine names. If there are no more names left, the first nine names are displayed again.



3 ACTION ICONS

These select the action required: SAVE, LOAD or ERASE. Nothing happens when one of these icons is turned on, the icons are used to indicate which action is to be taken when a filename is entered. Erase cannot be selected if drive T is on.

Note that discs cannot be formatted using the FILE window. Additional discs required for data storage should be formatted before MUSIC WRITER is loaded.



4 FILENAMES

Only letters A to Z and underline (SYMB SHIFT and 0 key) are allowed. The names can be up to eight letters long.

To enter a file name, first select the action required. Then Move the pointer over the listing window until a blank yellow strip appears. Pressing the SELECT key when the pointer is on the blank strip will display a cursor (underline). Type in the name and press ENTER.

If you have used DIRECTORY to list the files present, move the yellow strip over the required filename and press the SELECT key.

The yellow strip only appears if an action has been selected. Entering a filename performs the action.

5 USING DRIVE T

First set the action and enter the filename (section C3 and C4). When using drive T, the filename must always be entered on the blank strip. If the LOAD action has been selected, pressing ENTER on a blank strip loads the first file found with a valid filename.

Although the DIRECTORY icon is not used, the field type is used for tape save and load, using FILE Window's own tape header format. The same tape format is used for all SPECTRUM versions of MUSIC WRITER. When a filename is entered, a window displays the filename of each file found that matches the DIRECTORY icon's field type. If the field type doesn't match, a 'PASSING FILE' message is displayed.

The BAR EDITOR displays one bar using larger notes. Rests and ornamentation are also displayed. Due to lack of space, only the ornamentation for the selected part is displayed. Signs and marks concerned with the playing order of bars are left to MUSIC SHEET.

There is only room for two staves on the BAR EDITOR window. So a short score format has been used. The short score allows two parts to share a staff. Naturally the parts must use the same clef, so the BAR EDITOR puts the two treble parts on the treble staff. The advantage of the BAR EDITOR short score is that all parts are always visible. In written music the short score is usually a 'cut-down' version of a full orchestral score.

MUSIC WRITER allows the key to be set on each part. The key for each part is usually the same, but it can be different. Care should be taken when using a different key for parts one and two. Two parts with a different key would not share a staff in written music as a separate staff would be used (like MUSIC SHEET). If parts one and two must have a different key, then it is best to turn off the ALL PARTS icon. You should also refer to the section E4 on accidentals. Beginners are recommended to use the same key for all parts.



1 SIGNATURE STATUS

This is not an icon. It simply displays the key and time signature being used. When the BAR EDITOR bar is empty, the SIGNATURE STATUS will be the same as the KEY SIGNATURE and TIME SIGNATURE icons in MUSIC SHEET. When the BAR EDITOR staff is occupied, the SIGNATURE STATUS is fixed and will remain unchanged until the bar is deleted or a bar is copied from MUSIC SHEET.



2 NOTE STATUS

Again, not an icon. This displays the volume level and the pitch name of the last note entered.

If you have difficulty remembering the pitch name of part of a staff, move the pointer over that part of the staff and press SELECT. This will display the pitch name of that part of the staff on the NOTE STATUS. If you point to a note, the VOICE icon and the volume on the NOTE STATUS will be set to those of the note.



3 COPY BAR ICON

This copies the current bar in MUSIC SHEET into the BAR EDITOR. The bar number of the current bar is also displayed under the COPY BAR icon. The bar number will, of course, change if MUSIC SHEET is used to change the current bar.

When a bar is copied, the key and time signature are not taken from the MUSIC SHEET staff, but from the KEY SIGNATURE and TIME SIGNATURE icons. When the bar is put back into MUSIC SHEET the staff at that bar will contain the new signature. Likewise, the tempo is taken from MUSIC SHEET's TEMPO icon. Tempo is not displayed in the BAR EDITOR.

If a bar has auto beat set on it, the AUTO BEAT icon will be turned on. If auto beat is not set, the icon will be turned off.



4 COPY PART ICON

This copies the selected part of the current bar in MUSIC SHEET into the BAR EDITOR. The key and time signature remain the same as the SIGNATURE STATUS.



5 AUTO BEAT ICON

As mentioned in section A4, the first beat of each bar is stronger. This is done automatically if the AUTO BEAT icon is turned on. The NOTE STATUS volume will remain unchanged by AUTO BEAT.



6 SET PART ICON

This selects the part to be edited. Each time SELECT is pressed the next part is selected, from one to three and back to one.

Accent, Trill, Mordent and Turn will be displayed if present in the part selected.

7 VOICE ICON

This shows the current voice being used. When selected, it turns on the VOICE EDITOR window.

The voice can be changed by the VOICE EDITOR or set to the same voice as another note by pointing to the note and pressing SELECT



8 SCROLL ICONS

When lots of semiquavers or demisemiquavers are used, the measure may not fit on the screen. The SCROLL icons allow the display to 'move over' the measure so that you can look at notes at the beginning or end of the bar.



9 CHANGE VOICE ICON

This picks up an outline pointer. Move the pointer to a note and press SELECT to set the voice displayed on the VOICE icon. The CHANGE VOICE icon will flash to confirm the change.

Press DESELECT to drop the pointer



10 CHANGE VOLUME ICON

This picks up an outline pointer. Move the pointer to a note and press SELECT to set the volume displayed on the NOTE STATUS. The CHANGE VOLUME icon will flash to confirm the change.

Press DESELECT to drop the pointer



11 VOLUME ICONS

PP is used to reduce the volume on the NOTE STATUS by one for each time SELECT is pressed. FF is used to increase the volume by one.

The volume change does not affect any of the notes on the stave – only the NOTE STATUS (which sets the volume on all notes put on the stave)



11 1 VOLUME

There are different words and abbreviations used to indicate loudness.

	Fortississimo – as loud as possible
<i>ff</i>	— Fortissimo – very loud
<i>f</i>	— Forte – loud
<i>mf</i>	— Mezzo-forte – moderately loud
	Mezzo – medium
<i>mp</i>	— Mezzo-piano – moderately soft
<i>p</i>	— Piano – quiet
<i>pp</i>	— Pianissimo – very quiet
	Pianississimo – as quiet as possible

MUSIC WRITER allows eight levels of loudness. Set the volume to the third or fourth level for a score indicating Mezzo and adjust the volume on the TV or monitor to suit listening conditions.

12 PLAY BAR ICON

Incomplete parts can be played. If the ALL PARTS icon is on, all parts will be played. The part/s will be played at the tempo set when the time and key signature were set.



13 ALL PARTS ICON

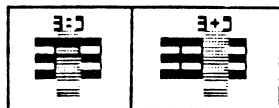
All three parts are displayed if this icon is turned on. When it is off, only the selected part is displayed. The symbol used for this icon is how two notes in unison are written.



14 DELETE BAR ICON

This deletes the displayed part. All parts are deleted when the ALL PARTS icon is on.





MUSIC WRITER BAR EDITOR

15 ADD BAR ICON

If all parts have been created and the correct number of notes are in each part, this icon will turn on the ENTER window. A part should contain a semibreve rest when a part is not being used.

The ENTER window offers two icons. One replaces the current bar in MUSIC SHEET with the one in the BAR EDITOR. The other inserts the bar after the current bar. Any adjustments required to the block markers will be made automatically.

16 EDITOR ICON

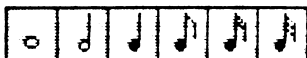
This icon is present on BAR EDITOR and MUSIC SHEET windows. The EDITOR icon swaps windows. Changing windows will not affect the contents of either window.

17 BAR EDITOR TEXT ICON

This turns on the TEXT window. Each bar may contain up to six lines of text or 240 letters and spaces (whichever is greater). This window can be used to add lyrics, but the window cannot scroll for bars wider than the window. The feature is provided mainly for adding comments and notes.

The TEXT window provides a simple word processor for entering text. The only facilities available are DELETE and ENTER.

This section deals with how notes are entered. Some of the following icons change the pointer to a music symbol. This is called 'picking up'. The symbol is changed back to a pointer by 'dropping' the symbol. Symbols can only be placed on the correct part of the staff being used for the part selected.



1 NOTE ICONS

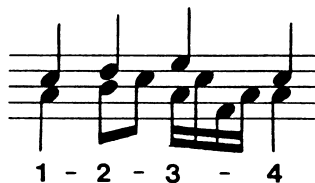
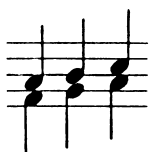
Use these to pick up the note you want. Move the note to the part of the staff which gives the pitch you want and press SELECT. If this note is not required anymore you can drop it by pressing DESELECT.

When a note is put on the staff, it takes its volume from the volume shown on the NOTE STATUS. The note also takes the voice number shown on the VOICE icon.

Notes can also be deleted from the staff. Move the pointer onto the note and press DESELECT. The note is also picked up in case you want to position it elsewhere.

Notes will only be put on the staff only if the correct staff is used for the part selected. Parts one and two use the treble (top) staff and part three uses the bass (bottom) staff.

Notes cannot be put on the staff when this takes the bar over its measure. See TIME SIGNATURE sections A4.1 to A4.3.



1.1 NOTES ON THE STAVE

When two parts share a staff the first part is usually on the top part of the staff. To avoid confusion with notes in the second part, notes in the first part are shown with their stem pointing up and notes in the second part shown with the stem pointing down.

When only one part is using the staff, it is usual for the note's stem to point towards the middle line of the staff. MUSIC SHEET displays notes this way. However, BAR EDITOR displays part three as if there were a fourth part. This is not musically correct, but necessary for technical reasons.

1.2 COPYING FROM SCORES

Some instruments can play more than one note at a time. Music written for these instruments may show notes sounded together as two parts or as two or more notes sharing a stem. Choose the highest note for part one and the lowest note for part three. If there are more than three notes, put the highest and lowest notes in part one and part three and select the note that best fits the melody line in part two. This rule need not always be applied, but will usually give good results.

1.3 BEAMING

You will often find notes joined together by their stems. This is called beaming and is not used in MUSIC WRITER.

Beaming is used to make the rhythm easier to see when the basic beat is divided into many smaller patterns. Two or more notes can only be beamed when they have flags on their stems.



2 REST ICONS

Each REST icon is just above the NOTE icon of the same duration. Rests are put on the bar in the same way as notes. The BAR EDITOR works out the vertical position of the rest.

Rests are not picked up when they are deleted.



2.1 RESTS ON THE STAVE

When there are two parts on a staff, a rest follows the last note in its part. When two rests of the same duration appear at the same point, they are shown as one rest would be when there is only one part per staff.

A semibreve (a four beat rest) is used when there are no notes in a part – even if the time signature gives less than four beats to the bar. Both semibreve rests are shown when they share a staff, this is to show that two parts occupy the same staff.

3 ACCENT ICON

This picks up an accent. Move the accent above the note you want to make stronger and press SELECT pressing DESELECT drops the accent.

An accent can be deleted from a note by pointing to the accent and pressing DESELECT



3.1 ACCENTS

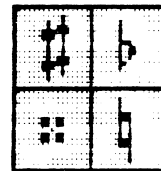
These are used to change weak beats into strong beats. Normally the first beat is the strongest, but in syncopated music the first beat may be a weak beat – the strong beat indicated by the accent symbol.



The accent may also be used to create a stronger rhythm with the AUTO BEAT turned on. In 4/4 time for example, placing an accent on the first and third beat will give a much stronger first beat, a weak second beat, a slightly stronger third beat and then a weak fourth beat. The same effect can be created by adjusting the volume on each note, but the purpose of the volume changes is not so clear to see.

4 ACCIDENTAL ICONS

These pick up the sharp, double sharp, flat and natural. Accidentals must be placed in front of the note they apply to. Pressing SELECT will have no effect unless the accidental is lined up correctly with the note head. Double flat is put on the staff by placing a flat on a flat already on the staff.



It is important to remember that accidentals alter the pitch for the rest of the staff line and not just the pitch of one note. When two parts share a staff, the accidentals of one part will affect all notes of both parts following the accidental.



An accidental can be deleted by pointing at it and pressing DESELECT. Deleting a note will also delete the accidental even if the accidental affects other notes on the staff.

4.1 SHARP

This shows that the note is to be played a semitone higher than the natural pitch.



4.2 DOUBLE SHARP

This shows that the note is to be played a whole tone higher than the natural pitch.



4.3 FLAT

This shows that the note is to be played a semitone lower than the natural pitch.



4.4 DOUBLE FLAT

This shows that the note is to be played a whole tone lower than the natural pitch.



4.5 NATURAL

This shows that the note is to be played at the natural pitch.



4.6 ACCIDENTALS

All accidentals change the natural pitch (those found in the key of C). They do not add or subtract pitch changes – putting a sharp on a line which is already sharp will not make the line any sharper! If you want to sharpen a line that the key signature has already sharpened, you must use a double sharp.

The effect of an accidental lasts until either the end of the bar, or another accidental is found.

5 DOT ICON

This does not pick up anything, but when turned on will dot any note or rest put on the staff (apart from demisemiquaver and semibreve). The icon is turned off by pointing to it again and pressing SELECT



5.1 DOTTED NOTES AND RESTS

Placing a dot after a note or rest adds half its duration to the note. A dotted crotchet = crotchet+quaver. Notes and rests can also be dotted twice. A crotchet dotted twice = crotchet+quaver+semiquaver. BAR EDITOR only allows a note or rest to be dotted once.





6 STACCATO ICON

This does not pick up anything, but when turned on will make any note put on the stave staccato. The icon is turned off by pointing to it again and pressing SELECT.

6.1 STACCATO NOTES

Staccato notes are played shorter, but with the same timing. There are different types of staccato which are softer or more severe. MUSIC WRITER uses a staccato which reduces a notes sounded length by half. So a staccato crotchet would be like a quaver followed by a quaver rest. A tied or slurred staccato note will not be so severe. A slurred staccato crotchet would be played as a dotted quaver followed by a semiquaver rest.

MUSIC WRITER does not play the 'decay' part of a voice when staccato is used. See section F on the VOICE EDITOR. This adds to the staccato effect.



7 TRIPLET ICON

This does not pick up anything, but when turned on will allow a note or rest to be added without changing the measure. The note or rest must be the same length as the two notes/rests preceding it and there must be at least two notes or rests in the part. Semibreve, minim or demisemiquaver triplets are not allowed. The icon is turned off by pointing to it again and pressing SELECT.

7.1 TRIPLETS

These are three notes played in the time of two. In written music the notes need not all be the same length – you could have a quaver and crotchet 'triplet' played in the time of two quavers. Usually the notes all have the same duration, and this is the kind of triplet available on MUSIC WRITER. Triplets can contain rests if they are the same duration as the notes.



8 GLISS ICON

This picks up an outline pointer. Move the pointer to the note that requires the glissando and press SELECT. The note must be followed by another note. The glissando will slide to the next note. Deleting the note following a glissando will also delete the glissando if it was the last note in the part.

Press DESELECT to drop the outline pointer.

8.1 GLISSANDO

A glissando is the rapid playing of all the notes between any two chosen notes. The effect of a glissando will depend on the instrument that plays it. A perfect glissando is one where the change in pitch is smooth with no sudden changes. A trombone plays a very good glissando, but a piano can only play the notes in the scale.

MUSIC WRITER plays a glissando in much the same way as it would be played on a piano, except that it plays the glissando chromatically. That means key signature and accidentals are played.



9 SLUR ICON

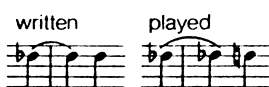
This picks up an outline pointer. Point to the first note to be slurred or tied and press SELECT. The note will be slurred to the next note. Point to the next note and repeat to extend the slur across more notes. If no note follows, the note will be slurred or tied to the first note in the next bar. If a bar does not follow the slur will be ignored even though the BAR EDITOR will display it.

Press DESELECT to drop the outline pointer.

9.1 TIES

Ties are used to create note lengths which are not possible by using dotted notes. For example a note lasting for the same duration as one crotchet and one semiquaver.

The tie is also used to join notes across the barline. It is important to note that any accidentals affecting the last note in a bar also affect the first note in the next bar when tied. MUSIC WRITER does not take this into account when playing a score. To hear the proper effect you must put the accidental on both notes either side of the barline. This would usually be done by the player.



9.2 SLURS

Slurs are used to indicate that notes are to be played smoothly – joined together. The effect will depend on the instrument (voice) used.

A note may be slurred to a pair of tied notes. Music Writer cannot display this, but extending the slur to the tied notes will sound the same.

Slurs can also be used with staccato dots to indicate a less severe staccato



10 DYNAMICS ICONS

These pick up an outlined pointer which is used to point to the notes which require the dynamic marks (crescendo or diminuendo). Pointing to a note next to another note with the same dynamic mark will extend the mark across both notes. It is best to start a piece with the volume set about midway when using dynamic marks.

The volume of each note is not changed, but is adjusted when actually playing. The target volume played will be set by first unmarked note. If the volume of the notes is unchanged, the maximum change possible will be played. That is, unless otherwise indicated, crescendo will increase to maximum volume and diminuendo will drop to the minimum volume.

The outline pointer is dropped by pressing DESELECT



10.1 DIMINUENDO

This mark is used to indicate that the notes should grow quieter.



10.2 CRESCENDO

This mark is used to indicate that the notes should grow louder.



11 TRILL ICON

This picks up a TRILL. Move the trill above a note and press SELECT

11.1 TRILLS

A trill is played as two notes, one a semitone or tone higher, alternating rapidly. The modern trill ends in a turn. The number of notes played depends on the length of the note the trill is placed above.



12 TURN ICONS

These pick up a TURN or INVERTED TURN (has a line through it). Move the turn above a note and press SELECT

12.1 TURNS

A turn is played as four notes, one note above and below the principle note (the one on the staff) with each note followed by a note at the same pitch as the principle note. An inverted turn is the same except that it starts on the lower note.

When turns are placed after a note, the turn starts off with an additional note of the same pitch as the principle note. This kind of turn is not available on MUSIC WRITER.

All notes must be played in the same time as the principle note would have been.

In written music you will sometimes find a sharp under the turn. This means that the note below the principle note is to be sharpened. Likewise when a turn has a flat above it, the note above the principle note is to be flattened. You may find both. This is not available on MUSIC WRITER and you must write the notation out in full if you want to use this effect.



13 MORDENT ICONS

These pick up a MORDENT or INVERTED MORDENT (has a line through it). Move the mordent above a note and press SELECT

13.1 MORDENTS

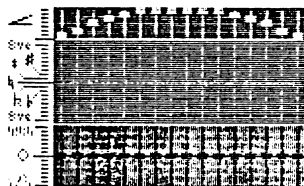
A mordent is played as two extra notes before the principle note (the one on the staff). The second note is played higher than the other two. The second note is played lower on an inverted mordent.

All notes must be played in the same time as the principle note would have been.



This window is used to select and edit voices used by PLAY BLOCK in MUSIC SHEET and PLAY BAR in the BAR EDITOR. The Voice Editor can hold one set of ten voices in a voice bank which can be loaded and saved using the FILE window.

This window is dropped by pressing DESELECT



1 THE VOICE

Each voice is made up of three effects. A volume envelope, pitch envelope and noise. All three effects are divided into sixteen 'time slices' The first five are used by PLAY for the attack part of a note. The next six slices are used for the sustain part of the note. The last five slices are used for the decay part of the envelope. See section F3 about how time slices are used.

1.1 ENVELOPES

An envelope is the name given to the 'shape' of a sound, the area 'enclosed' by the waveform. The volume envelope shows how loudness changes with time. The pitch envelope shows how pitch changes with time. The noise effect assigns noise to the time slices used by the volume and pitch envelopes.

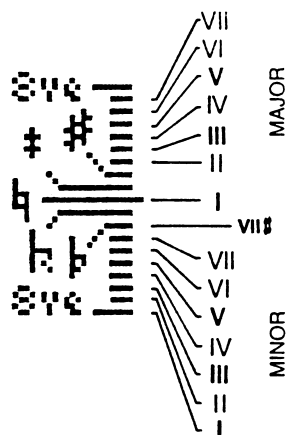
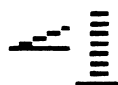
The attack part of an envelope helps give a note a distinct sound. Setting the volume high at the start of a note will give it a percussive sound. Starting at a low volume and gradually raising it gives the note a slower start and a more 'fluty' sound. Raising or lowering the pitch at the start can increase the effect of the attack. Adding noise to the start also will give the note a drum like sound.

The sustain part is usually quite level. Changes in volume will create a wide range of effects. Small changes in pitch will create a vibrato effect. Large changes in pitch create siren effects.

The decay part of the envelope allows the note to die away. If the volume is at the same level throughout the envelope, the notes will run together as if slurred. Changing the pitch at the end of a note can give a guitar like 'twang' to the note.

2 EDITING A VOICE

The envelopes are displayed like graphs. Each bar on the graph can be moved by pointing to the new position and pressing SELECT. Any changes made to the voice will not be put in the voice bank until the voice has been entered.



2.1 VOLUME ENVELOPE

There are eight levels of volume which can be used to shape the sound of a note. The volume set on a note is not affected by the envelope as the envelope changes are added to the note's volume during PLAY

2.2 PITCH ENVELOPE

The centre line of the pitch envelope is shown as natural – this is shorthand used by the Voice Editor and here it means whatever pitch set by the staff and any accidentals.

The first pitch change is a quarter tone, which can be used for effects or to produce notes that play a quarter tone higher or lower than written and displayed. The second pitch change is a semitone. There is not much point changing every time slice by a semitone as it's easier to just use a sharp or flat on a note.

The next pitch changes cover eight intervals above the natural and eight below the natural. The eighth interval changes pitch by one octave. This is useful for playing notes that won't fit on the staff. The intervals 2-7 are not the same as the staff. The upper octave covers the major scale using the pitch of the note as the tonic. The lower octave covers the minor scale. The intervals 1,3 and 5 can be used to create chord arpeggios or 'strum' effects. The intervals should be counted from the natural up on the upper octave and from the 8ve on the lower octave.

2.3 NOISE EFFECT

Noise can be added to any of the time slices. This is useful for percussion effects. The centre line is off – no noise. Mid range to high frequency noise is above the line. Mid range to low frequencies are below the line. Noise can only be played on one note at a time. Precedence is given to notes in part three



However, notes which use noise in different time slices may be used together without any noise 'dropouts'

3 VOICE TYPE ICONS

These select the voice type. Each time slice lasts only a fiftieth of a second. This would mean the voice can only last three tenths of a second. Two ways of adjusting the length of the voice have been used

The 'yacht' type expands each time slice (plays it more than once) to fit note length. If the note is shorter than the voice, slices are cut from the end until the voice fits.

The 'schooner' type plays each slice once, but repeats the sustain part of the voice to fit the note length. If the note is shorter than the voice, slices are dropped from the sustain and then the attack. The first part of the decay is always played. This ensures that very short notes using only one or two slices have sufficient volume. The attack is likely to have a low volume rising, while the decay is likely to have a high volume falling.

A voice must be entered using the ENTER VOICE icon before a change of voice type is recognised by the voice bank.

4 VOICE TEST ICONS

These play the displayed voice at middle C at known durations. The semibreve plays a note for four times the length of the voice. The crotchet is twice the length of the voice. The quaver plays all the time slices once. The semiquaver plays a note lasting half the length of the voice

5 ENTER VOICE ICON

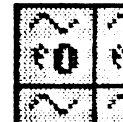
Selecting this turns on an NUMERIC INPUT window. Enter the voice number you want the displayed voice assigned to.

6 VOICE BANK ICONS

These are numbered 0-9. Selecting one displays the voice ready for editing. Dropping the window sets the VOICE icon on the BAR EDITOR to the selected voice

7 FILE VOICE ICON

This turns on the FILE window. The filename of the voice bank saved or loaded is displayed at the bottom of the VOICE EDITOR window.



GETTING STARTED



If you haven't got a +3 drive you will need a spare blank tape for your MSC (music) and VOX (voice) files. The first thing to do is save the SET—A VOX file. SET—A is loaded as part of MUSIC WRITER, but you may need a copy to load separately

Point to the EDITOR icon and press select (see introduction). This flips in the BAR EDITOR WINDOW. Now move to the VOICE icon and press select – you now have the VOICE EDITOR. Move the pointer to the file icon and press select. You now have the FILE window. Select the drive required and then the SAVE action. Enter the file name 'SET—A'. See section C.

One of the best ways to familiarize yourself with music notation is to copy and adapt existing scores. The following section gives one example of the kind of thing you can do with existing scores – messing around with rhythm.

You will need the demo score on side two of the cassette. So get back to MUSIC SHEET. Press DESELECT to turn off the VOICE EDITOR, then select the EDITOR icon in the top right hand corner. Select the FILE icon on the MUSIC SHEET display. Make sure the 'T' DRIVE SELECT icon is on and select the LOAD action. Enter the file name: DEMO (RETURN). As this is to be loaded from tape and the DEMO file is first on the tape, you could also just press ENTER – this loads the first file found.

The DEMO file contains three arrangements of 'The Blue-Tail Fly'. Each arrangement is separated by a 'blank' rest bar. First hear how they sound. Move the pointer to the PLAY BLOCK icon and press SELECT. You can hear how the different parts affect the whole song by just playing one part at a time. Move the pointer to the SELECT PART icon for part one and press SELECT, then do the same for part two. If you select the PLAY BLOCK icon now, you will only hear the bass part of these arrangements. Try playing file with different combinations of parts turned on and off.

The first arrangement is going to be changed, but the others are not needed so they will be deleted. Move the pointer to the left block marker (marks bar 1) and press select. This opens a NUMERIC INPUT window. Enter bar number 35. This is the first bar of the second arrangement. The block markers should now mark bars 35-80. Move the pointer to the DELETE icon and press select. Both markers will now be marking the current bar. Select PLAY again to see the effect this has (make sure all parts are on). To play the whole arrangement, the markers must be reset out – select the RESET OUT icon.

Select the EDITOR icon. You will now be back in the BAR EDITOR. On the far left is the COPY BAR icon (between the NOTE STATUS and the current bar number). This can be reached more quickly by moving right (off the screen) and down rather than by moving across the screen. Select the COPY BAR icon. The first bar will appear on the screen.

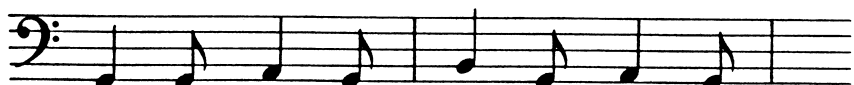
The part that's going to be modified is part three. Move the pointer over the SET PART icon and press SELECT twice. This should display the number three.

In the new arrangement, the rhythm used for the bass line in bars 15-18 is going to be used in the whole song. The rhythm is used like this:



It is really 12/8 time, but two 6/8 bars are used here. The first two notes are on the ROOT of the chord, the second two are on the 3rd of the chord. All the notes in the second bar are on the 5th of the same chord except for the 3rd note in the bar which leaps out of the chord onto the sixth interval. If you're not sure what all this means, refer to sections X6 to X8 before reading further.

The way the rhythm is placed on the chord is going to be changed as follows.



G

GETTING STARTED

All the notes, except for three, now appear in the ROOT position. The first note in bar two is on the 3rd of the chord, the other two notes leap out of the chord at the 2nd interval. This pattern is applied to each chord in the song. The chords used are given in the BAR EDITOR's text window. Move the pointer to the window title at the bottom of the screen and press SELECT. To turn off the TEXT window, press DESELECT

Make a note of the chord used and delete the notes in part three. You can do this two ways. If there are not many notes, you can delete them one at a time by pointing to them and pressing DESELECT twice, the first time to pick them up and the second time to dump them. If there are a lot of notes, turn the ALL PARTS icon off. This will leave only the selected part displayed on the screen. Select the DELETE BAR icon and the displayed part will be deleted. It is not necessary to have all parts displayed while editing, so you can leave the other parts turned off if you like.

Before entering any notes, first set the volume and voice to be used. Voice five is good for the bass part. Turn on the VOICE EDITOR by selecting the voice icon, then select voice five in the VOICE BANK. Turn off the window by pressing DESELECT Use the pp and ff VOLUME icons to set the volume level required.

Now to enter the first note. The chord in the first two bars is G and the ROOT is, of course, G. Find G on the bass stave. There are two Gs on the bass stave, you want the lowest. If you are not familiar with the stave, you can find the pitch by trial and error – point to part of the bass stave and press SELECT, this will set the NOTE STATUS with the pitch you've pointed to.

Point to the crotchet NOTE icon and press SELECT You will now have a crotchet instead of a pointer Move the crotchet to the part of the stave that you know represents pitch G and press SELECT If the note has not been put where you wanted it, delete it and try again. You will have to drop the note you're 'holding' to do this. Enter the second crotchet at the note above G. You should now have two crotchets on the bass stave one at G and one at A.



Now enter the two quavers. Only the pointer can select icons so make sure you drop the crotchet before trying to pick-up another note. Both quavers are at G and each follows a crotchet.



Check that you are satisfied with the voice and volume selected. Make sure the ALL PARTS icon is on and then select the PLAY BAR icon. If the volume or voice is to be changed, make the change and then select the CHANGE VOICE/ VOLUME icon. Only one change can be made at a time, so if you're changing both voice and volume you may find it easier to delete and re-enter the note. Using the CHANGE icon, point to the note and press SELECT The icon will flash once if the change has been made Press DESELECT to drop the change pointer

Move the pointer to the ADD BAR icon and press SELECT This will present two more icons. Choose the one on the left. This replaces the current bar with the one in the BAR EDITOR. Now flip back to MUSIC SHEET and use the SCROLL icon to put bar two onto the light blue panel. You're now ready to modify the second bar.

Get the second bar into the BAR EDITOR. The notes used this time will be a crotchet at B and A with the two quavers following at G. Enter this bar as before. You should now have two bars starting the song with the new rhythm. Now do the same with each pair of bars upto bar 15 using the same pattern on each chord given in the text window.

Play the new arrangement – it might sound better with part one re-arranged, but now you're on your own

This XTN provides some useful BLOCK operations missing on MUSIC WRITER. There are two types of XTN icon on the MUSIC SHEET window. The XTN BLOCK and the XTN. The XTN BLOCK turns on the UTILITY menu window which may be used to select the facility required - provided the XTN has been loaded. The XTN icon turns on the FILE window using the XTN field type name. This also has the effect of erasing the current XTN file, so the XTN icon should only be used when you intend to load an XTN file.

1 TEMPO

This menu option sets the tempo on all the bars in the marked block with the tempo given on the TEMPO icon. The TEMPO icon should be set before the XTN icon is used.

2 TRANSPOSE

This sets the key on the selected parts of all the bars in the marked block with the keys given on the KEY SIGNATURE icons.

Changing the key in this way will change the notes used. In the key of C the pitch G is the fifth note in the scale. If the scale of the key of E is used, the fifth note becomes B. So all notes that were once G become B when the key is transposed from C to E. You can check this on the interval calculator.

Transposing from one key to another has the general effect of raising or lowering the pitch of the song.

Each MUSIC WRITER staff is limited to two octaves. This means that a note can no longer be displayed (or played) if it's lowered or raised too far. When this happens MUSIC WRITER raises or lowers the note an octave. The pitch will be as it should, but the note will sound higher or lower than expected and may need to be changed.

Of course, If you are writing for an instrument, you must make sure that all the notes stay within the range of the instrument you are writing for. MUSIC WRITER only changes the octave of a note when it doesn't fit on the MUSIC WRITER staff.

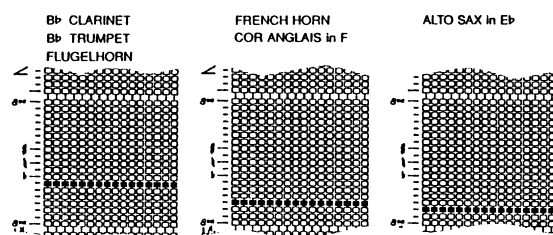
Accidentals are also changed to keep the same intervals between notes. In the key of C, the interval B-C is one semitone. A flat on the B will make the interval B \flat -C a whole tone. If the key is transposed to E, B becomes D \sharp and C becomes E. To make the interval D \sharp -E into a whole tone a natural must be used, so that B \flat transposes to D natural.

It should be noted that MUSIC WRITER cannot preserve intervals by deleting accidentals. If the interval cannot be kept the same as in the old key, a report is made. The report gives the accidental and the bar of the accidental. Make a note of the bar and press a key to continue with the transposition. When transposition is completed you can make the required changes to the notes.

2.1 TRANSPOSITION

There are two reasons for key transposition. To alter pitch to suit taste and to suit transposing instruments. The most likely use for key transposition on MUSIC WRITER is to change the pitch of the song to suit taste or possibly the range of a singer's voice.

If you're writing music for different instruments you may have to write some parts in a different key to avoid difficult fingering. The instruments that require this are called transposing instruments. The instruments generally sound lower than they are written. If you are writing in the correct key for the instrument, you can hear the correct pitch of notes by creating voices which sound lower than written. Here are voice pitch intervals for some of the transposing instruments.



However you may find it easier to write all parts in the same key then transpose the parts required for transposing instruments. Remember to write notes so that they can transpose downwards.

Some instruments, even though their parts are written higher or lower than they sound, are not transposing instruments:

PICCOLO Octave higher

DOUBLE BASS, BASS CLARINET Octave lower

The rule for transposing instruments is that the note C is written when the name of the instrument sounds. So, for example, a clarinetist would play B \flat on a B \flat clarinet whenever they find the note C written on the staff. Whatever key you've chosen, you must transpose to another key that allows the instrument's note name to be written as C. This can be done using the INTERVAL CALCULATOR.

Here are two examples for the B \flat clarinet:

A song has been written in A \flat major move A \flat to interval I, B \flat is now at interval II on the calculator B \flat must be written as C, so position C at interval II and read off the new key at interval I B \flat . In this case, the new key has the same name as the instrument's note name, but this isn't always the case..

A song has been written in E \flat major move E \flat to interval I, B \flat is now at interval V on the calculator As before, C is moved into position occupied by B \flat . C is now at interval V and the new key can be read off at interval I The part for the B \flat clarinet must be transposed to the key of F

Remember that MUSIC WRITER cannot transpose to fit the range of an instrument. You may have to make changes to some notes before copying or printing your score.

3 VOICE n

This menu option shows the voice number given on the VOICE icon in the BAR EDITOR. Selecting this option sets the voice on all notes in the selected parts of the marked block. The voice to be used must be selected in the BAR EDITOR before the XTN icon is used.

4 VOLUME n

The number after the VOLUME menu option gives the volume level displayed on the BAR EDITOR's SIGNATURE STATUS icon. Selecting the VOLUME option sets the volume on all notes in the selected parts of the marked block. The volume to be used must be set in the BAR EDITOR before the XTN icon is used.

Accents are unaffected by this operation, but the effect of dynamic marks will change as both the start and end volume will be the same. See section E10.

5 AUTO BEAT n

Auto beat can be either on or off. 1=on and 0=off. Selecting the AUTO BEAT option will set or reset auto beat on each bar in the marked block. Auto beat must be set in the BAR EDITOR before the XTN icon is used.

6 XTN COPY

This is used to transfer an XTN file from tape to either RAM disc or +3 disc. Before you select the XTN icon, choose the drive required on the MSC FILE window. Don't use the XTN FILE window as this will erase the current XTN! Exit from the FILE window and then select the XTN BLOCK icon. Select the XTN COPY option. Place the tape with the XTN to be copied in the player, press a key to start and play the tape. The XTN will be saved to RAM or +3 disc using the filename given on the tape header. The copied XTN will also become the current XTN.

The utility will not make copies to tape.

1 BOOKLIST

The list below gives the books that played an important part in creating MUSIC WRITER. Some of the books may no longer be in print, but many are still available from public libraries. There are many music dictionaries which are also useful.

The first, by Roger Evans, is particularly recommended for beginners. KEYNOTE is more suitable for classwork.

HOW TO READ MUSIC - Roger Evans - Elm Tree Books/EMI

KEYNOTE - Tim Cain - Cambridge University Press

MUSIC COURSE FOR STUDENTS -
Geoffrey Winters - Oxford University Press

WRITING DOWN MUSIC - Alan Bousted - Oxford University Press

MUSIC NOTATION - Gardner Read - Victor Gollancz Ltd

2 TEMPO TABLE

If a tempo is given in minim beats per minute, simply halve the number to get the tempo in crotchet beats. If a tempo is given in quaver beats, double the number to get the tempo in crotchet beats.

Italian	English	♩BPM
<i>Largo</i>		
<i>Adagio</i>	Very Slow	50
<i>Lento</i>		
<i>Andante</i>	Slow	60
<i>Andantino</i>		
<i>Moderato</i>	Moderately	90
<i>Allegretto</i>		
<i>Allegro</i>	Fast	120
<i>Vivace</i>		
<i>Presto</i>	Very fast	180

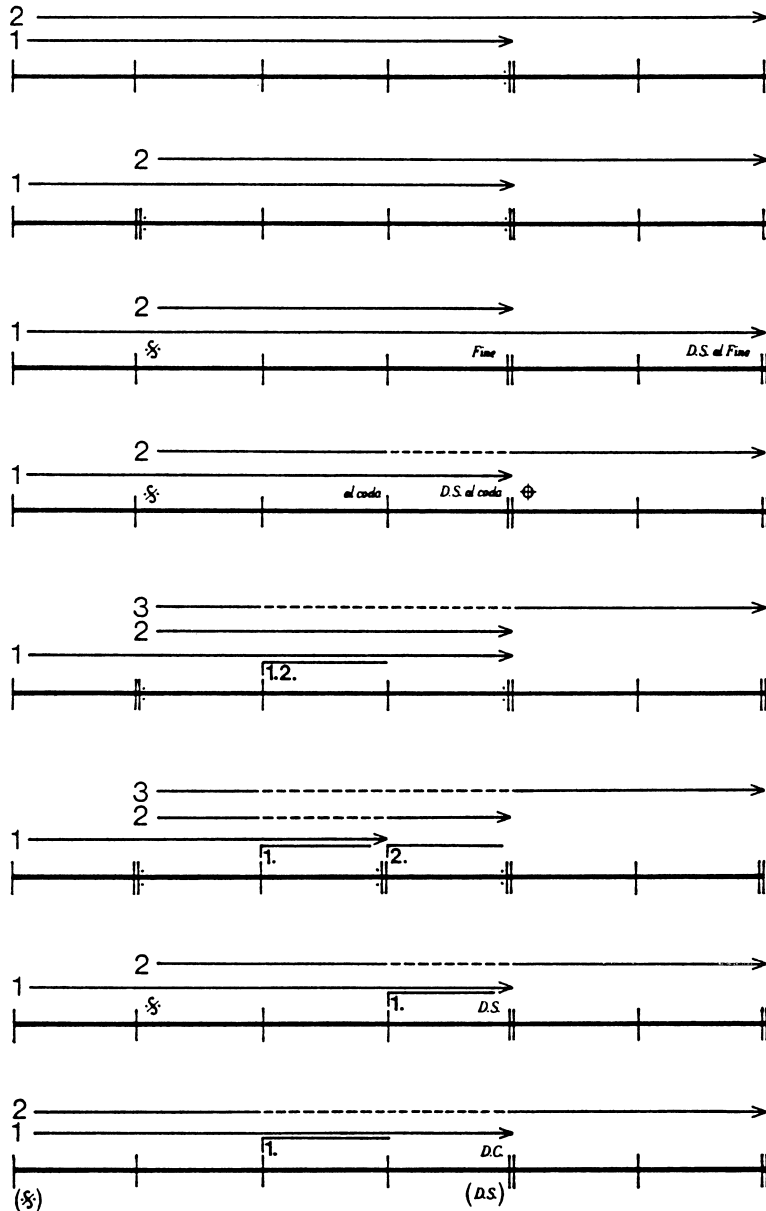
3 BARS PER MINUTE

This table gives the number of bars that can be played in one minute at a given tempo and time signature.

		MEASURE					
		2 4	4 8	3 8	3 4	2 4	6 8
♩ TEMPO	50	25	33	16	12	16	
	60	30	40	20	15	20	
	90	45	60	30	22	30	
	120	60	80	40	30	40	
	180	90	120	60	45	60	

4 PLAYING ORDER

The following diagrams illustrate the playing order of bars with repeat marks and signs.



5 KEY SIGNATURES

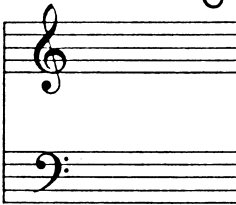
Sharps and flats are used to indicate which parts of the staff are to change in pitch. To avoid a messy key signature, only the sharps and flats spanning one octave are shown. The player must remember to adjust the other octaves in the same way, but of course Music Writer does this for you.

There is a quick way to identify a signature when copying from a score. Just count the number of sharps or flats in the key signature, and then look the number up in the table.

The key signatures shown in the first column of the box sound the same as the keys in the second column. B sounds the same as C \flat . Keys with different names, but sound the same are called enharmonic. It is usual to choose an enharmonic key with the smallest number of sharps or flats. B has five sharps and C \flat has seven flats, so the key of B would generally be chosen in preference to C \flat .

MAJOR KEY SIGNATURES

C



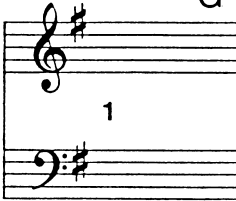
B



C \flat



G



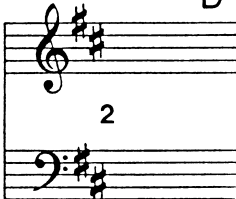
F \sharp



G \flat



D



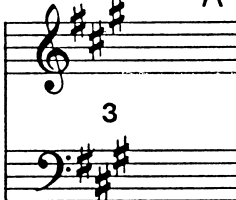
C \sharp



D \flat



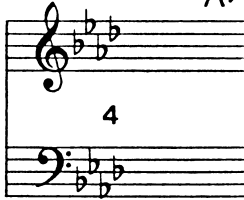
A



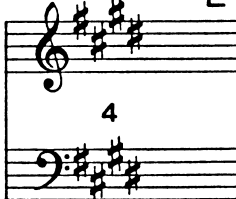
F



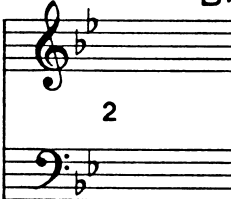
A \flat



E



B \flat



E \flat



MINOR KEY SIGNATURES

a

a^b
7

e
1

e
6
d[#]

b
2

b^b
5

f[#]
3

d
1

f
4

c[#]
4

g
2

c
3

5.1 MAKING A KEY SIGNATURE

You can also find which named pitches must be sharpened or flattened for a key using the INTERVAL CALCULATOR. Use the major section for major keys and the minor section for minor keys. Set the key note at the first interval and read off the pitch names at each interval. Remember to not mix sharps and flats in your key signature.

6 CHORDS

The following tables show the chords found in each key. A chord allows you to easily pick out notes that will harmonize with the melody.

major

C D_m E_m F G A_m B[°]

I II III IV V VI VII

A_m B[°] C⁺ D_m E F G⁺

minor

	I	II	III	IV	V (V7)	VI	VII
C	G E C	A F D	B G E	C A F	(F) D B G	E C A	F D B
D	A F [#] D	B G E	C [#] A F [#]	D B G	(G) E C [#] A	F [#] D B	G E C [#]
E	B G [#] E	C [#] A F [#]	D [#] B G [#]	E C [#] A	(A) F [#] D [#] B	G [#] E C [#]	A F [#] D [#]
F	C A F	D B ^b G	E C A	F D B ^b	(B ^b) G E C	A F D	B ^b G E
G	D B G	E C A	F [#] D B	G E C	(C) A F [#] D	B G E	C A F [#]
A	E C [#] A	F [#] D B	G [#] E C [#]	A F [#] D	(D) B G [#] E	C [#] A F [#]	D B G [#]
B	F [#] D [#] B	G [#] E C [#]	A [#] F [#] D [#]	B G [#] E	(E) C [#] A [#] F [#]	D [#] B G [#]	E C [#] A [#]

Chords are named after the pitch of the note they are based on. Sometimes the interval number is used instead of the pitch name (see section A3.3) So in the key of C, the chord III is E - but in the key of G the chord III is B. Lower-case letters are used for chords in a minor key (iii instead of III) You can use the INTERVAL CALCULATOR to find the chord's pitch name from the interval number. Set the key note at the first interval then read off the pitch names against each interval - this is exactly the same as finding the pitch name for each note in a scale because the chords are based on the notes of the scale.

7 CHORD TYPES

The basic chord is called a triad. A triad is made up of three notes spaced at two intervals: 1-3 and 1-5. The first note in a chord is usually called the root and the pitch of the note gives its name to the chord.

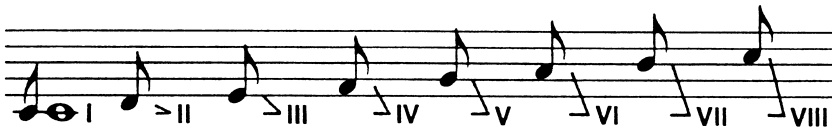
5th - () - 3rd - 7th

root →

7.1 INTERVALS

An interval is the distance in pitch between two notes. The intervals found in a scale are called major. An interval becomes minor (smaller) when it is a semitone less than normal. Some intervals have a particularly open pleasant sound. These are called perfect rather than major intervals. The perfect intervals are: 1st (unison), 4th, 5th and the 8th (octave). When perfect intervals are made smaller, they are called diminished rather than minor. So you wouldn't get a minor 5th, it would be called a diminished 5th - I guess musicians like to complicate things.

Here are eight intervals from middle C. Use the BAR EDITOR to enter the quavers into part one and the semibreve into part two (remember to use 4/4 time and a slow tempo). Then listen to how each interval sounds.



7.2 MAJOR CHORD

A major triad consists of three notes: The root, 3rd and 5th. For example, to find the notes in the chord of F major: The first note is F, so line up F with the first interval, then read off the pitch names at the third and fifth intervals in the major section of the calculator. This gives A at the 3rd and C at the 5th. The chord F consists of F, A and C.

It's called a major chord because it consists of a major third and a perfect 5th.

7.3 MAJOR SEVENTH

A major seventh is a major chord with an note added at the seventh interval. This may also be referred to as a superimposed third. count 1(5) 2(6) 3(7)

7.4 DOMINANT SEVENTH

This is like the major seventh except that the seventh interval is minor (one semitone less). The minor interval occurs naturally when the chord is based on the fifth note in a scale (the dominant note).

7.5 MAJOR AUGMENTED

This is like a major chord except that 5th interval has an extra semitone added to it. A + sign is sometimes used instead of the word 'augmented'.

7.6 MINOR CHORD

A minor triad consists of three notes. The root, 3rd and 5th. For example, to find the notes in the chord of A minor: The first note is A, so line up pitch A with the first interval, then read off the pitch names at the third and fifth intervals in the minor section of the calculator. This gives C at the 3rd and E at the 5th. The chord Am consists of A, C and E.

It is called a minor chord because it consists of a minor 3rd and a perfect 5th.

7.7 MINOR SEVENTH

A minor seventh is simply a minor chord with a note added at the seventh interval. The seventh interval is minor.

7.8 MINOR WITH MAJOR SEVENTH

Like the minor seventh except that the superimposed third is major.

7.9 DIMINISHED CHORD

This is like a minor chord except that the fifth interval is made a semitone smaller. A ° sign is sometimes used instead of the word 'diminished' (see section 7.1).

8 MAKING CHORDS

The INTERVAL CALCULATOR can be used to find the pitch name of notes in any named chord. Each division represents one semitone, but the notes are found by counting the intervals. Use the major section on the calculator for major and augmented chords, the minor section for minor and diminished

chords. The key you're using is ignored here. Place the pitch name of the root of the chord at the first interval. Then read off the pitch names at the 3rd and 5th interval.

Remember to make adjustments for augmented and diminished chords. Augmented chords: read off the pitch name a semitone above the fifth interval in the major section. Diminished chords: read off the pitch name a semitone below the fifth interval in the minor section.

The seventh interval on the major scale gives a major added third. If the root note is dominant (the fifth note in the scale) you should use the pitch indicated a semitone below the 7th.

The seventh interval in the minor section gives a minor added third. Add a semitone to get the pitch for a major seventh (use VII \sharp interval)

You can sharpen the seventh note of the scale whenever it appears in a chord used in a minor key. For example: E \flat in C minor. This chord is based on the third note of the key of C minor; a quick look at the chord types next to the calculator shows that E \flat is an augmented chord. This is because the seventh note in the scale (B \flat) is sharpened to B natural. Section 7.4 indicates that an augmented chord is made up of a major third and a sharpened 5th, so use the major section of the calculator to find the pitch names. The calculator will give E \flat , G and B.

9 FILE & MUSIC SHEET REPORTS

Reports are made on a window. Except for the +3 DOS ALERT window, the report windows are closed with any key press.

9.1 DOS ERROR

This prints a +3 DOS error report number. The meaning of this can be looked-up in the +3 user manual.

9.2 DOS ALERT

This prints a +3 system message and a prompt to press either C to cancel, I to ignore fault or R to retry. Pressing C to cancel gives a DOS ERROR report number 0. Press any key to continue.

9.3 LOAD ERROR

This report is given if a tape file has failed to load correctly.

9.4 QUIT SAVE/LOAD

This report is given if BREAK is pressed during saving or loading tape files.

9.5 FILE TOO LONG

This report is given by the FILE window and MUSIC SHEET. FILE window gives it when a merged file is too big - the contents of the block are not affected by this error, so try repositioning the block markers to include more bars (to allow more room for the merged file)

MUSIC SHEET gives this error when there is not enough room for a copy of the marked block.

9.6 ALREADY EXISTS

This error is reported by MUSIC SHEET. An attempt has been made to use a sign more than once - see section A6.

9.7 NOT ALLOWED

This covers a lot of things - it means the facility to do something a particular way is not available on MUSIC WRITER. It doesn't mean that what you're attempting is necessarily wrong. In short, it's just not allowed!

9.8 XTN NOT FOUND

An XTN file must first be loaded using the XTN icon below the EDITOR icon. Once an XTN program is present the XTN BLOCK icon may be selected.

10 PLAY REPORTS

No checks are made when signs or marks are placed in bars. Errors are reported only when the bars are played.

10.1 EXIT

EXIT is reported if a sign or mark takes PLAY outside the marked block.

10.2 BREAK ENDS PLAY

This is reported if BREAK is pressed. PLAY always finishes playing the current bar before making the report.

10.3 SEGNO?

A segno is missing from the file

10.4 MARK?

This error is reported if a repeat mark or double barline is not found while looking for the end of a skipped volta section. Make sure a volta section ends with a left/right repeat mark or double barline.

This error also occurs when D S., D.S. Al Coda or D.S. Al Fine is used in a bar without a right repeat mark or double barline.

10.5 D.S. AL?

An Al Coda or Fine is missing from the file

10.6 CODA?

A coda is missing from the file.

10.7 BAD VOLTA

This report is made when another volta bracket is discovered while playing a volta section. This happens when the section being played doesn't end in a repeat mark or double barline.

10.8 BAD CODA

This occurs when a coda is found without first finding al coda. Al coda may be present in the file but the coda is likely to be in the wrong place - it should be in the last group of bars in the file.

10.9 BAD SIGN

This is reported when a bar sign is found in a coda section. There should not be anything which causes play to leave the coda section, or enter it except through al coda.

This report also occurs when a segno is found in the same bar as a volta bracket.

10.10 BAD REPEAT

This occurs when repeat marks have been found in a coda section. These may be found in written music with an instruction to 'repeat to fade', but are illegal here due to the possibility of them being used to take the order of play outside the coda section.

10.11 TOO MANY REPEATS

This should be a very rare report. It will occur when a complex arrangement of volta and repeat marks causes the 'times' counter to go out of range. The solution is to simplify the structure of the score.

11 BAR EDITOR REPORTS

As with all other reports, a window is used to display the report. Press any key to close the window.

11.1 NOT ALLOWED

This occurs when there has been an attempt to combine music symbols in a way which MUSIC WRITER cannot cope with. For example, triplets cannot contain ornamentation – this is purely for technical reasons.

11.2 OVER MEASURE

This is reported when the duration of a note or rest is too long to be placed within the measure of the bar. It does not mean no more notes can be added, just that the note or rest must be smaller or other notes in the part deleted to make room for the note.

If a longer measure is required, first fill the bar to the current measure - then add the bar to MUSIC SHEET. Go to MUSIC SHEET and select a longer time signature. Go back to BAR EDITOR and grab the current bar (the one you added), this will set the new time signature in the BAR EDITOR. Finish the bar then replace the bar in MUSIC SHEET. See section D15 on adding and replacing bars.

11.3 MEASURE FULL

This occurs instead of the OVER MEASURE report when the correct number of notes/rests are in the part and adding any note or rest would take the part over measure.

11.4 UNDER MEASURE

This report is made when an attempt is made to ENTER a bar into MUSIC SHEET when it does not have the correct number of notes or rests for the set measure. This applies to any part in the bar - not just the current part worked on.

The measure can be changed as in 11.2.

11.5 MISSING PART

This occurs when an attempt is made to ENTER a bar with a missing part. A missing part will be one with no notes or rests in it. Place a semibreve rest in all unused parts.

12 MUSIC SYMBOLS NOT USED

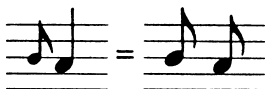
There are a number of music symbols which you may come across that are not available on MUSIC WRITER. Alternative ways of entering the music notation are given here. Symbols covering instructions for specific instruments are not covered here. A good music dictionary should provide the answer.



12.1 TIME SIGNATURES

Two symbols you may come across C and C with a vertical slash through it, present no problems. C is four four time and C with a vertical slash through it is two two time.

The compound times 9/8 and 12/8 are not available, but three 3/8 or two 6/8 bars may be used to give the same effect. Auto beat can be used in both bars with an accent over the first note in each odd numbered bar.



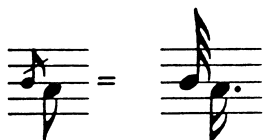
12.2 APPOGGIATURA

This is a grace note. Its printed smaller than usual. It takes its time out of the note following it, so a quaver grace note before a crotchet would require the player to play the grace note and the crotchet as two quavers.



12.3 ACCIACCATURA

This is also, more correctly, known as the short appoggiatura. It is identified by a stroke passing through it. There are two ways it can be played. It can be played at the same time as the note it is attached to (the note following it), in which case you could place the note in another part. Or it is played slightly before the beat. In both cases it would be played as short as possible with little attention paid to the value of the grace note.



To play such a note in MUSIC WRITER you would need to shorten the note before the grace note. It is best to use the shortest possible note (on MUSIC WRITER), the demisemiquaver (with three flags on its tail). The note before it would have to be shortened by the appropriate amount. If there is no note in front of the grace note, you will have to play the grace note on the beat and shorten the note that follows it. The notes in the margin shows how to shorten notes of various durations to make room for a demisemiquaver.



12.4 PAUSE

When this appears over a note or rest it means the exact duration is left to the players judgement. In most cases this must be ignored on MUSIC WRITER. However, if the pause is over the last note in the bar and a rest follows, the duration of the note can be changed to suit yourself and the rest adjusted accordingly.

X

APPENDIX

12.5 REPEATED NOTES

A note with a stroke through it is repeated using the number of strokes as an indication to the value of the note to be used. Three strokes would indicate that a demisemiquaver (three flags) is to be repeated to the length of the printed note.

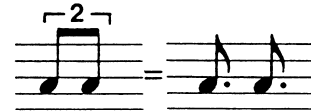


12.6 REPEATED BARS

A / or % through a bar indicates that the previous bar is to be repeated. If there is a number above or below the bar, then this is the number of times the bar is to be repeated. Simply make the appropriate number of copies of the bar

12.7 DUplet

In compound time a beat is divided into threes. If a division of two is required a duplet is used just as a triplet can be used to divide a simple beat note into three. Simply dotting each of the notes in the duplet will have the same effect.



12.8 TUPLETS

A quintuplet is a group of five notes, a sextuplet six and a septuplet seven notes - either group played in the time of four notes. A sextuplet can be entered as two triplets. A quintuplet can be played with three of the notes entered as a triplet and the rest as normal. A septuplet would have to be entered using half the value of the printed notes and dotting two of them. For example a septuplet of seven quavers could be entered as five semiquavers and two dotted semiquavers. Not completely satisfactory in a slow tempo but passable in a fast tempo.

VOICE FILE

FILENAME

4

9

3

8

2

7

1

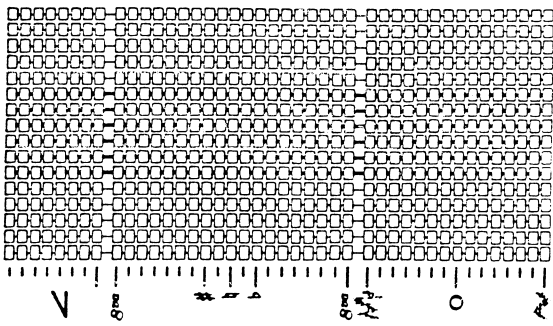
6

0

5

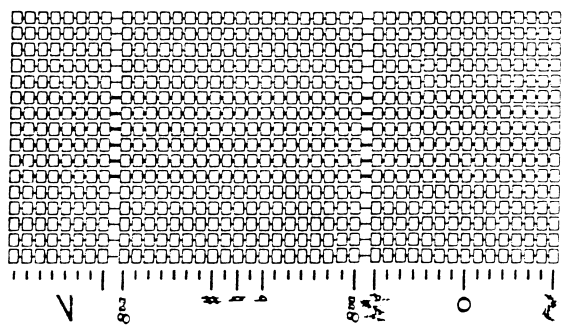
FILENAME

4



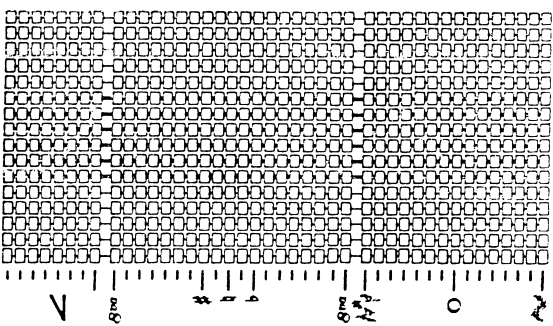
Musical notation for voice file 4, featuring a treble clef, a key signature of one sharp (F#), and a common time signature (C). The notation includes a series of notes and rests on a five-line staff.

9



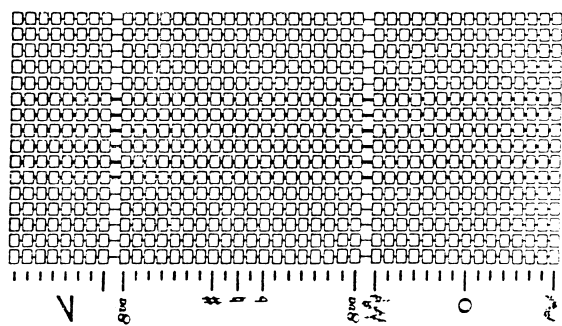
Musical notation for voice file 9, featuring a treble clef, a key signature of one sharp (F#), and a common time signature (C). The notation includes a series of notes and rests on a five-line staff.

3



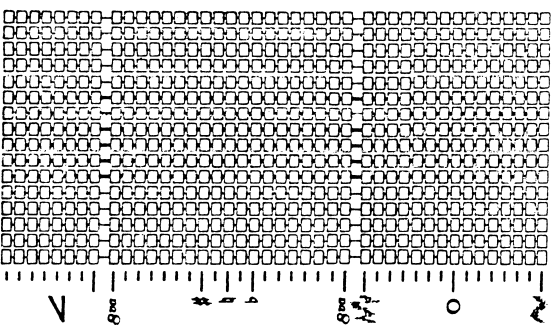
Musical notation for voice file 3, featuring a treble clef, a key signature of one sharp (F#), and a common time signature (C). The notation includes a series of notes and rests on a five-line staff.

8



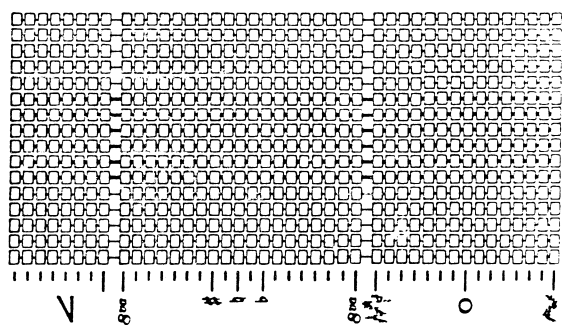
Musical notation for voice file 8, featuring a treble clef, a key signature of one sharp (F#), and a common time signature (C). The notation includes a series of notes and rests on a five-line staff.

2



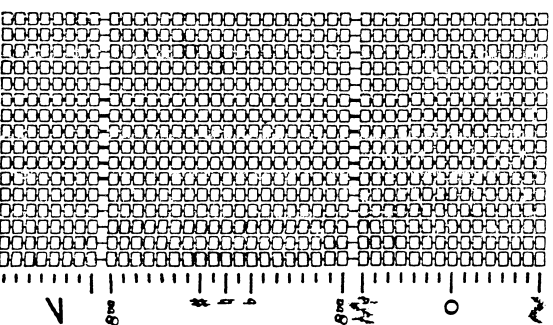
Musical notation for voice file 2, featuring a treble clef, a key signature of one sharp (F#), and a common time signature (C). The notation includes a series of notes and rests on a five-line staff.

7



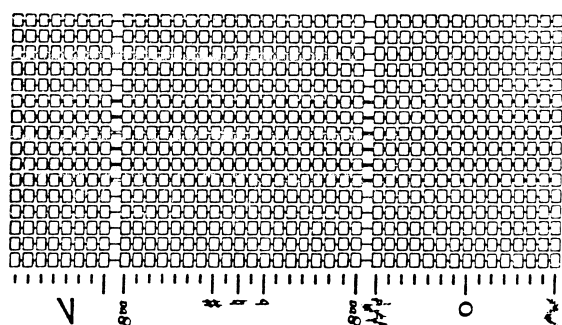
Musical notation for voice file 7, featuring a treble clef, a key signature of one sharp (F#), and a common time signature (C). The notation includes a series of notes and rests on a five-line staff.

1



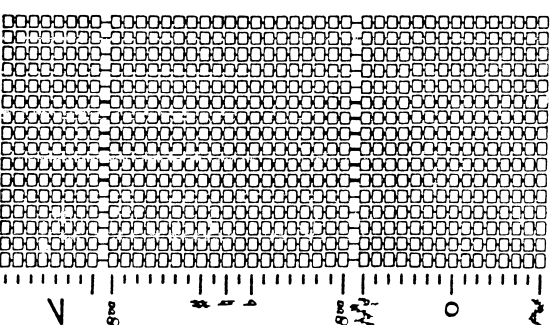
Musical notation for voice file 1, featuring a treble clef, a key signature of one sharp (F#), and a common time signature (C). The notation includes a series of notes and rests on a five-line staff.

6



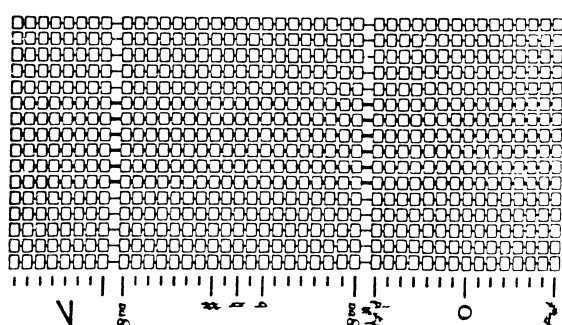
Musical notation for voice file 6, featuring a treble clef, a key signature of one sharp (F#), and a common time signature (C). The notation includes a series of notes and rests on a five-line staff.

0



Musical notation for voice file 0, featuring a treble clef, a key signature of one sharp (F#), and a common time signature (C). The notation includes a series of notes and rests on a five-line staff.

5



Musical notation for voice file 5, featuring a treble clef, a key signature of one sharp (F#), and a common time signature (C). The notation includes a series of notes and rests on a five-line staff.

SONG FILE

TITLE	
FILENAME	
DATE	
VOX FILENAME	
NUMBER OF BARS	PLAYING TIME
COMMENTS	

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FILENAME	
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VOX FILENAME	
NUMBER OF BARS	PLAYING TIME
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NUMBER OF BARS	PLAYING TIME
COMMENTS	

C D_m E_m F G A_m B[°]

A_m B[°] C⁺ D_m E F G[#]

INTERVAL CALCULATOR

MAJOR	-----	MINOR
VIII	-----	VIII
VII	▶-----▶	(VII [#])
	-----▶	VII
VI	-----	
	-----▶	VI
V	▶-----▶	V

IV	-----	IV
III	▶-----	
	-----▶	III
II	-----	II

I	▶-----▶	I

***Music
Writer***



Assembly of the Interval Calculator
 Cut the strip along the dotted line. Make four slots as indicated by the dotted lines above and below the Interval Calculator.
 Slip the strip between the top band and the bottom band so that the scale on the strip can be lined-up with the major and minor interval scales.
 See section X6 and X8 for use of calculator