

Unit 41: Working With Music Notation Packages

Unit code:	R/600/6897
QCF Level 3:	BTEC National
Credit value:	10
Guided learning hours:	60

● Aim and purpose

The aim of this unit is to develop learners' knowledge and skills to gain confidence with using music notation packages to create scores in a range of situations.

● Unit introduction

Musicians must be able to share their ideas with other musicians so that they can be performed. There are many ways that this can take place, but the written score remains one of the most commonly used, and is especially important for composers and arrangers. Music publishing companies do not accept handwritten parts, and in performance and recording sessions the clarity obtained from scores and parts created by music notation packages ensures accuracy and efficiency in an industry where time is money.

Knowing the language and symbolism of notation is essential in order to communicate fluently with reading musicians using the medium of a score. Only by knowing this in depth will musicians be able to express themselves without restriction. Furthermore, it is important that musicians are aware of the differences in scoring convention between one musical style and another.

In order to prepare for all eventualities, musicians should be able to prepare scores from handwritten parts, from sequencer or MIDI files, and also to be creative within the confines of traditional notation. It is likely that any job involving the use of music notation packages will combine elements of each of these skills in varying amounts.

During this unit learners should acquire the skills and confidence to be able to express their creative musical ideas using musical notation, to the extent that a performance given from that notation will be faithful to their original intentions.

● Learning outcomes

On completion of this unit a learner should:

- 1 Know the elements of musical scores in contrasting styles
- 2 Be able to use a music notation package to create a score
- 3 Be able to edit a score generated from a MIDI or sequencer file
- 4 Be able to use a music notation package to realise musical ideas.

Unit content

1 Know the elements of musical scores in contrasting styles

Elements: eg titles, credits, tempo, style, performance directions, rehearsal numbers, indentation, instrument names, brackets, braces, spacing, bar lines, chord symbols, text, time signatures, clefs, ties, slurs, articulation, grouping, stem direction

Styles: eg classical, graphic, lead sheet, piano reduction

2 Be able to use a music notation package to create a score

Accuracy: eg authentic style, layout, use of elements, formatting; legibility

Efficiency: eg use of software, auto routines, keyboard shortcuts, inputting data, editing data

3 Be able to edit a score generated from a MIDI or sequencer file

Editing tools: edit modes; changing notes; editing events eg changing events, inserting events, deleting events; quantise features; transposition

MIDI files: MIDI file format, MIDI file types; file transfer

4 Be able to use a music notation package to realise musical ideas

Music notation package skills: inputting notes and objects eg real-time performance, step-recording, clicking in; editing notes and objects eg deleting notes and events, pitch, note length, placement, velocity; quantisation

Stylistic interpretation: tempo track; choosing and combining sounds; controlling expression

Arrangement: eg control of structure, awareness of sections, building parts, control of texture, introduction, ending

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P1 identify the elements of musical scores in contrasting styles [IE, RL, SM]	M1 explain the elements of musical scores in contrasting styles	D1 appraise the elements of musical scores in contrasting styles
P2 use a music notation package to create a score competently with limited tutor support [IE, CT, SM]	M2 use a music notation package to create a score accurately with total independence	D2 use a music notation package to create a score demonstrating mastery of the processes involved
P3 edit a score generated from a MIDI or sequencer file competently with limited tutor support [IE, CT, SM]	M3 edit a score generated from a MIDI or sequencer file accurately with total independence	D3 edit a score generated from a MIDI or sequencer file demonstrating mastery of the processes involved
P4 realise musical ideas using a music notation package. [IE, CT, SM]	M4 realise musical ideas using a music notation package competently.	D4 realise musical ideas using a music notation package with confidence and flair.

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills applicable in the pass criteria. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers CT – creative thinkers	RL – reflective learners TW – team workers	SM – self-managers EP – effective participators
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Essential guidance for tutors

Delivery

Delivery of this unit should be practical and relevant to industrial needs. Learners might be given the opportunity to undertake a number of introductory assignments at the beginning of the course to demonstrate the application of various skills, but there should be a lengthy opportunity to work on a final product.

Initial assignments are likely to concentrate on learners developing familiarity with the features of the software programs with which they will be working. Current programs offer a wealth of creative opportunities. In order to achieve the higher-level criteria, learners will need to demonstrate the creative capabilities of the programs with which they are working. For those learners who are not familiar with MIDI, it may be that a significant amount of time during the delivery of the unit is spent using MIDI software programs. For this reason it is recommended that learners study *Unit 24: Sequencing Systems and Techniques* prior to, or alongside this unit in order to develop their experience of computer-based music making.

Learners studying this unit may not be fully aware of the conventions of score layout. Learners who are used to looking at the score to 'see the notes' might not even realise that there are rules that allow for an effective presentation of the music. In this respect, time should be given for learners to study a number of scores in order to familiarise themselves with all the elements found in professionally engraved scores.

Learners should have access to scores (and parts) in a range of musical styles in order that they can compare the use of scoring elements, and form judgements as to the success of these scores as documents from which musicians can realise the musical ideas of the composer or arranger. Learners will require access to computers running one of the industry standard music notation packages available, together with adequate access to input devices (eg MIDI keyboards) and monitoring.

To further their knowledge in this field learners will need to recreate a previously published score using a music notation package, and this can be in the style of their choosing. It is up to the unit tutor to ensure a range of scores is available to suit the needs and interests of the group.

Editing scores generated from MIDI (or sequencer) files can be approached either by using MIDI files supplied by the tutor (who must ensure that appropriate licences are in place for the use of the files), or by learners converting their own sequencing work (from *Unit 32*, for example). The latter approach may be more challenging to manage, particularly in a large group, but will prove ultimately more rewarding as the learners see their own musical creations as traditional notation.

Realising their own creative musical ideas through the medium of score and parts will be a new way of conceiving music for many learners, so it is important that lessons in music theory and harmony (ideally as part of another unit) are delivered to support this part of the unit.

Access to systems will be required outside of lesson time to allow learners adequate time to develop the creative aspects of this unit. Learners should be encouraged to undergo peer review and group feedback in order to inform their creative work. Learners can create original music or provide an arrangement of an existing melody to meet the final learning outcome, provided the score they create is their own work.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Introduction to the programme and structure of the programme of learning.
Understanding the elements of musical scores – learning outcome 1; theory lessons on: <ul style="list-style-type: none">• analysing published scores• the meaning of musical symbols• using text in scores• publishing conventions.
Assignment 1: The Elements of Musical Scores – P1, M1, D1
Identification test.
Copying a published/handwritten score – learning outcome 2; tutor-led workshops to cover: <ul style="list-style-type: none">• using music notation software• appropriate score styles• publishing conventions.
Assignment 2: Engraving a Score – P2, M2, D2
Learner practical work/resource-based learning.
Creating a score from a MIDI (or sequencer) file – learning outcome 3; tutor-led workshops to cover: <ul style="list-style-type: none">• using music notation software• MIDI file formats.
Assignment 3: Scoring a MIDI/Sequencer File – P3, M3, D3
Learner practical work/resource-based learning.
Creating music using a music notation package – learning outcome 4; tutor-led workshops to cover: <ul style="list-style-type: none">• using music notation software• using sound sources• scores played by live musicians.
Assignment 4: Realising a Musical Idea Using Score – P4, M4, D4
Learner practical work/resource-based learning.
Review unit and assignments.

Assessment

This unit requires the musician to create scores using a music notation package in a variety of contexts, but will also require some written work to support higher grading. It should be remembered that, for the most part, it is the learner's understanding of scores and how to create them that is being assessed, rather than their compositional skills, which are examined in other units. Assessment should take place continually during workshops where learner independence is being observed and assessed, but in line with the nature of the publishing industry, which this unit is guided by, the assessment of each outcome will have a deadline for the final submission of required evidence. It is recommended that learners adhere strictly to these deadlines in order to give themselves the best chance of achieving the highest possible grading.

Learning outcome 1 will be evidenced through an annotated list. This can be approached in a number of ways, perhaps initially as a research task, and finally as a formal test. The use of the word 'contrasting' in the learning outcome/grading criteria implies that elements should be drawn from a minimum of two contrasting styles. To achieve P1 learners will be able to identify a specified number of elements. To achieve M1 learners will provide explanations of the function of each element. For D1, learners will be able to give informed opinion as to the success with which each element represents the respective attribute of a musical performance (for example, whether tempo indications on a score truly represent the actual variations in tempo performed by musician as part of their natural performance).

Learning outcome 2 requires learners to demonstrate that they can create a score using a music notation package by copying a handwritten or previously printed score. At P2 learners may require some tutor intervention to help them achieve this. Learners creating scores that are judged to be accurate while working with total independence will achieve M2. It is essential that tutor observations and all records of tutor involvement are rigorous. Learners will also submit a written report detailing the process undertaken, and this will provide the evidence for D2 (where P2 and M2 are already met).

Learning outcome 3 requires learners to demonstrate that they can edit the data generated from a MIDI file (or sequencer file) into a legible score. For P3, learners may require some tutor intervention to help them achieve this. Learners creating scores that are judged to be accurate while working with total independence will achieve M3. It is essential that tutor observations and all records of tutor involvement are rigorous. Learners will also submit a written report detailing the processes undertaken, and this will provide the evidence for D3 (where P3 and M3 are already met).

Learning outcome 4 requires the production of finished musical piece using a music notation package, and supporting written report. In order to create a recording of this piece learners can either utilise the sounds that are built into some music notation packages, or have their score/parts performed by live musicians. This activity can also meet outcomes in several other units (notably those concerned with performing and recording). They will also submit the score they have created. It should be noted carefully, that although musical ideas are being realised, it is the use of the music notation package that is being assessed in this outcome (and unit as a whole). The perceived quality of the composition is not being assessed here, and there are opportunities in other units for this to take place.

A piece of music that has been realised using a music notation package will achieve P4. To achieve M4, the evidence will show that learners have used music notation package skills in ways that are musically appropriate, and have a clear understanding of the processes involved. Distinction level learners will demonstrate mastery of the skills required to use a music notation package to the extent that their music demonstrates imagination, creativity and flair uninhibited by technical limitations.

In all cases careful teacher questioning in order to reduce the amount of written work can substitute written reports. This is most easily managed in smaller groups where the tutor can ensure fairness and equality of opportunity.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, M1, D1	The Elements of Musical Scores	Create annotated lists of the signs, symbols and text found in typical scores from two contrasting musical styles.	Identification test.
P2, M2, D2	Engraving a Score	Work from handwritten or previously published scores to create an engraved copy, using a music notation package.	Evidence to include: <ul style="list-style-type: none"> • printout of the finished score • written report/tutor questioning to support higher grading.
P3, M3, D3	Scoring a MIDI/Sequencer File	Work from a MIDI or sequencer file supplied by their tutor to create a legible score, using a music notation package.	Evidence to include: <ul style="list-style-type: none"> • printout of the finished score • written report/tutor questioning to support higher grading.
P4, M4, D4	Realising a Musical Idea Using Score	Use a music notation package to create a score of an original musical idea (eg composition, song, arrangement).	Evidence to include: <ul style="list-style-type: none"> • video evidence • printout of the finished score • recording of the music (using the sounds built into the software or as a real recording of a performance given by musicians) • written report to support higher grading.

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC Music and Music Technology sector suite. This unit has particular links with the following unit titles in the BTEC Music and Music Technology suite:

Level 1	Level 2	Level 3
	Exploring Musical Composition	Arranging Music
	Exploring Computer Systems Used by Musicians	Composing Music
		Sequencing Systems and Techniques

Essential resources

Initially, learners will need classroom/lecture sessions appropriate for the delivery of theory-based lessons, as well as access to a wide variety of professional scores in a range of styles in order to make the links between theory and implementation.

For the majority of the unit, learners will need classroom/workshop sessions where they are able to apply the skills demonstrated by their tutor in the preparation of their own work, and request assistance where appropriate. Classrooms will need to be equipped to an appropriate standard, with modern, reliable computers running appropriate music notation software, access to adequate monitoring for demonstration and private study, projection and printing facilities. Software packages provided should give access to a wide range of scoring tools and techniques. Where the software does not allow playback using built-in instruments, additional software (or hardware) must be provided to allow this. If possible, learners should have access to musicians who will play and record their scores at some point during the unit.

Computer-based setups will also need MIDI controller keyboards as input devices for creative work.

Indicative reading for learners

Textbooks

Johnson M – *Composing with Finale* (Delmar, 2008) ISBN 978-1 598635737

Rudolph T and Leonard V – *Sibelius: A Comprehensive Guide to Sibelius Notation Software* (Hal Leonard, 2007) ISBN 978-1 42341 2007

Wixen R – *The Plain and Simple Guide to Music Publishing* (Hal Leonard Publishing Corporation, 2007) ISBN 978-0634090547

Journals

MusicTech

Sound On Sound

Websites

Audio.tutsplus.com

Audio Tuts+ blog

www.macprovideo.com

Mac Pro Video

www.musictechmag.co.uk

Music technology magazine

www.soundonsound.com

Sound on Sound magazine

Delivery of personal, learning and thinking skills

The table below identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

Skill	When learners are ...
Independent enquirers	analysing musical scores
Creative thinkers	realising musical ideas using scoring techniques
Reflective learners	responding to feedback during the creative process
Self-managers	working towards a deadline
Effective participators	planning creative projects.

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
Independent enquirers	researching elements of musical scores
Creative thinkers	choosing different approaches to problem solving
Reflective learners	giving and receiving feedback in 'critique' sessions
Self-managers	balancing the requirements of an engraved score against personal creative involvement
Effective participators	working with musicians.

● Functional Skills – Level 2

Skill	When learners are ...
ICT – Use ICT systems	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	creating scores using music notation packages
Use ICT to effectively plan work and evaluate the effectiveness of the ICT system they have used	creating scores using music notation packages
Manage information storage to enable efficient retrieval	creating scores using music notation packages
Follow and understand the need for safety and security practices	creating scores using music notation packages
Troubleshoot	creating scores using music notation packages
ICT – Find and select information	
Select and use a variety of sources of information independently for a complex task	preparing written reports
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	preparing written reports
ICT – Develop, present and communicate information	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> • text and tables • images • numbers • records 	preparing written reports
Bring together information to suit content and purpose	preparing written reports
Present information in ways that are fit for purpose and audience	preparing written reports
Evaluate the selection and use of ICT tools and facilities used to present information	preparing written reports
Select and use ICT to communicate and exchange information safely, responsibly and effectively including storage of messages and contact lists	preparing written reports

Skill	When learners are ...
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	contributing to 'critique' based peer feedback sessions
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	preparing written reports.