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Study And Function of Software Sibelius: Audio Score Number Converted To Partitur Score In Ave Maria 'S Song In Lourdes Madah Bakti -546

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Abstrak

Saat ini, para pegiat kehidupan tidak lepas dari kemajuan teknologi, segala sesuatu yang mereka capai tidak lepas dari bantuan digital yang semakin maju. Tujuan dari penelitian ini adalah untuk melihat dan memeriksa fungsi perangkat lunak pada not musik Sibelius yang dikonversi menjadi not musik. Para musisi masih menggunakan hal-hal manual dalam mengonversi skor ini, karena mereka tidak terbiasa menggunakan pola digital. Perangkat lunak di Sibelius memudahkan konduktor atau pembuat musik untuk mengeksplorasi inspirasi mereka. Penjelasan tentang Sibelus dan notasi angka memang penting bagi musisi yang tidak mengenalnya. Metode penelitian ini menggunakan deskriptif kualitatif, mengulas penjelasan sebelumnya untuk melihat persamaan dan kelebihan dan kekurangan notasi bilangan dan notasi blok. Menilai sejauh mana perangkat lunak Sibelius dapat membaca konversi.

Kata Kunci: *Teknologi, Digital, Sibelius, Konversi, Notasi angka, Notasi blok, Penilaian.*

Abstract

Nowadays, life activists are inseparable from technological advances, everything they cannot be separated from the help of improving this advanced study to see and examine the function of software on Sibelius, Sibelius, not numbers converted to block notes. The musicians still use manual to convert these scores, because they are not used to using digital patterns. Sibelius' software makes it easy for music conductors or creators to explore their inspiration. The explanation of Sibelius and the notation of numbers are indeed important for musicians who are not yet friendly to him. This research method uses descriptive qualitative, examining a previous explanation to see the similarities and, advantages, and disadvantages of number notation and block notation. Examines the extent to which Sibeliuscanis able to read its conversions.

Keywords: Technology, Digital, Sibelius, Conversion, Number notation, Beam notation, Assessment.

I. Introduction

The further we look ahead, the more we will understand that technology continues to advance. Teachers or students who study music, especially those who want to read numeric notes or block notations better, are now easier. Because almost every school and university already uses software to make their work easier. This is a new breath for those who need it, where they can use this as a support material to facilitate their learning.

We can call this the digital age. Where almost every human being in this universe uses technology as a reference or reference in life, especially in the educational aspect. In the current learning method, technology is a learning process that must be applied. The tool we use is a *compute*. This *computer* is a media that is always attached and almost all students have it (Andriyanto, 2020 .

Then the development of this technology will continue to grow until we never get tired of it to continue to learn something new from the technology itself. Maybe in the future we will be more dependent on this technology. Starting from using applications from an android to ordering orders from the distance we want. Everything has become a digital world. Music has also experienced the same thing, where music is almost assisted from a *device* from a software from a *computer* .

From some of the opinions above, here the author wants to explore further in the adjustment in the sense of looking back at the structure of a music through the conversion of the notation. It is important to see where the role and function of the structure or idea of music actually lies.

The music in the devotional hymn is sung especially in the Catholic church, this song is a hymn that almost all Catholics can follow the pattern of number notation in this devotional hymn book. Why is that, because from childhood they have been used to reading it. But times are changing, technology continues to haunt every human activity, one of which is software that appears to facilitate the conversion of a notation to music. The name of this software we call Sibelius. To explore this structure, it is necessary to first know the advantages and disadvantages of this software and how far it can convert music notation via *audio* or *track records* .

In Sinaga's opinion, in today's era, it is very important to use media facilities because it really helps educators in reading notation (Sinaga & Winangsit, 2019) .

In art learning, an educator should be able to read notation and write it. Because music education does not only lie in education, it is even more so by humanizing

humans to increase competence in the field of music (Sinaga & Winangsit, 2019) .

From the above explanation, Sinaga and Winangsit, what touches the reader the most is the expression of humanizing humans. We cannot avoid that the purpose of learning is to improve human abilities both ethically and even more professionally. This can help other networks become wider to be able to create opportunities for others.NOTAS

History Of Notation

Music was born since prehistoric times, this idea was sparked by Prier saying that about 5000 BC ago. Then it continues to grow from year to year, it is evident that there are 15 monuments and inscriptions that still exist in Egypt. From this music, it does not only consist of the strains of the melody that is heard but can be written down into a written form. We can say that what is written is notation. This notation pattern is a clue to find out the short length of a note. When we want to know the rhythmic notes that are written, we can find out the difference in a note from a piece of music. From this notation we are more free to develop in which direction the basic tone of a melody is (UNJ, 2020) .

According to Martinus, Not is a written sign that has a pitch. Added more notation as a process in stringing tones. Meanwhile, according to Banoe, notation is a symbol or musical writing (UNJ, 2020) . That from this notation understanding is a description of the musical process itself, because this music is something that continues to be creative without any limitations, but has a pattern. From this pattern, a music maestro must understand to what extent the musical tones can be developed to produce a harmonious blend.

Meanwhile, according to Wikipedia, a website about science says that this musical notation is a system or pattern in the writing of musical works. In this musical notation, the tone is symbolized by the word *note* . Music writing can be said to be a sheet music. This standard notation is block notation. Based on the pranada or symbol of each note that provides a knowledge of where the duration and height of the tone are. The high or low of the tone is determined by neatly arranged symbols and patterns (Wikipedia, 2010) .

It is added that block notation with writing was first coined by Pope Gregory the Great in 590. It is said that Gregorian notation at that time did not have a long note and was sung according to the feelings of the singer and still with 4-line note blocks. Looks like the image below,

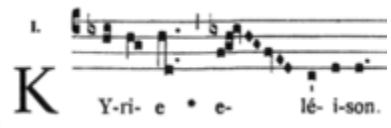


Image: Taken from Kyrie eleison (Orbis factor) (Wikipedia, 2010) .

The picture above clearly shows that the block notation is still very simple, but it already has a structure in the score itself. The musical notes with 4 lines were enough to become a guideline in a musical presentation in 590.

Differences Of Not Beams And Not Numbers

Block Notation

Block notation is not commonly known in Indonesia, not many young people can read this block notation. This notation is only available in various institutions that deal with music, besides that notation is also taught at concerts of an orchestra because the writing of the notes must be prestigious. Beam notation was introduced by the Dutch colonialism to Indonesia: in terms of *note balk,* which is a notation that has 5 horizontal lines that function to adjust the pitch of the note. Purwanto said this pitch is known as a *note* . Meanwhile, Wijaya said that in beam notation, the tone is represented by an egg-shaped note that has a stem and a flag. Of all these symbols, the notes have their respective values that are placed on lines and columns called *"great staff"* (Syah, 2014) .

It is important to know the value or price of a note because it can cause disharmony in the presentation of music if the tone is not priced accordingly. The notes that are written must match the pattern and follow the direction and pattern of the tone together. If we imagine we make a song notation blocks to present a song that can be recognized more deeply with a group or a group of musicians, it takes longer time to adjust the pattern and rhythm of the song. In addition, this block notation has its components as well, ranging from key signs, tempo, pranada and time signatures.

All of this must be in accordance with patterns and rules so that in the presentation of music it can produce music that is harmonious and beautiful to listen to.

Elements of Beam Notation

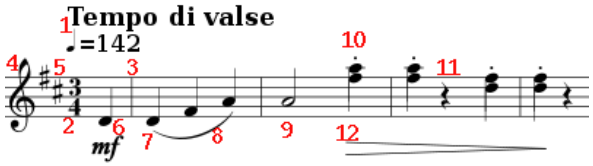
From the data and information on the official Wikipedia site, the block notation uses a five- line staff system as its basis. In addition to a description of the tempo, rhythm, dynamics, and instrumentation used, notes are placed on sticks and played from left to right. The duration of the note is represented by the different pitch values , while the pitch is represented by the position

of the note vertically on the stick. The interval of two notes separated by sticks (that is, in two adjacent spaces), as shown in the figure to the right , is the third interval , while the interval between the note in the space and the note in the line is the secondary interval . The key mark at the beginning of the stick indicates the pitch represented by the lines and spaces on the stick. In the image on the right, the G key is used, which indicates that the second row from the bottom represents the note G. Thus, the third interval in the image on the right is the a1-c2 tone pair, while the secondary interval is the a1-b1 tone pair . Notes that represent notes beyond the range of the five stick lines can be made using guides (Wikipedia, 2010) .

The 3/4 timestamp here indicates that there are three beats in the meter, a strong beat followed by two weak beats, and each beat is worth a quarter note. At the beginning of the stick is the key of G which indicates that the second row from the bottom represents the G note (frequency around 418 Hz).

The main prefix here consisting of two sharp starting marks on the c and f chord lines indicates that two notes across all octaves are raised by a semitone (played as C-sharp and F-sharp notes) and indicates that the piece of music in question has a scale. D major or B minor. The second note is also a quarter note and a d1 note that falls on the first n beat of the next measure (Wikipedia, 2010) .

Furthermore, there are quarter notes with two note heads at the pitch positions *fis2* and *a2* , indicating that the two notes should be played simultaneously. Above the note is a *staccato mark* , indicating that the note should be played *staccato* (significantly separate from the notes before and after). The quarter break sign indicates that no notes were played for (in this case) a single beat. Below the last three steps is the decrescendo sign, which indicates that the three steps have changed the dynamic, that is, it is played more and more softly (Wikipedia, 2010) .



Source: https://id.wikipedia.org/wiki/No NOTAS annoyance

Number Notation

The history of number notation in Indonesia is not something that is very clearly discussed, because there is no exact date or month how this number notation came to Indonesia, but according to Rizal this number notation came from the Dutch colonial era. At that time the inhabitants of

the earth were confused when they saw the complex notation of blocks and was difficult for them to understand. With this incident for the benefit of the missionaries who came to Indonesia, with the concept of introducing songs at worship celebrations, the Dutch began to change this block notation system into number notation for the benefit of the people and the people at that time (UNJ, 2020) .

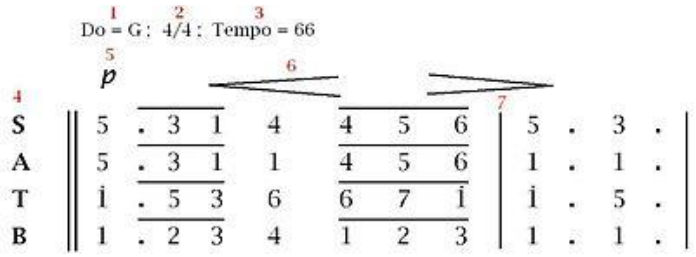
Here it is clear that the block notation was changed by a music *maestro* to make it easier to read the worship song. This number notation has a simple system, at first glance there are not too many complicated things if you want to learn.

Notation of numbers in the language of music denoted by numbers. Symbols of this number notation can be classified into two, namely,

Number Symbol	1	2	3	4	5	6	7
Solmization	Do	Re	Mi	Fa	Sol	La	Si

Reading Number Notation

4 voice notation *S (Soprano), A (Alto), T (Tenor), B (Bass)* Reading number notation is not as complicated as reading block notation, it is enough that we know the function and pattern with the numbers so we learn to express the tone. For example, if it says 4/4, it means that it marks the time signature on the rhythm of the song. If there is written tempo, it means we understand the time in a beat, if it is written tempo = 66 then in one minute there are 66 beats. The *P sign* stands for *Piano* , *Cresendo* and *Decresendo* which indicates a dynamic change in a song that can make the song louder and then softer again. SATB indicates the type of voice the line is singing. Then is the bar line which is the separator between the bars (Wikipedia, 2010)



Source:
https://id.wikipedia.org/wiki/Notasi_musik

There are not many sources that can be shown here, but with good experience, it can be described that reading numeric notation is not as complicated as reading block notation. For the reader, it is enough to understand *sol mi sa si* , namely the price of the tone. The number 1 indicates *do* , 2 indicates *re* , and so on. So after understanding that, then remember the beat is in a dot. The vertical dash represents the number of beats in each measure.

Sibelius Understanding

According to Wikipedia, Sibelius is a software program that is widely used by musicians to create musical notes. This program is used not only by songwriters or arrangers, even educators in schools also use this software. What supports this software so that it can be used by musicians and educators is that it can easily edit and write notes. Examples of music that can be edited are jazz, pop, band, vocal, etc. These musical notes can be directly written by the software with audio or track records.

Not only that by playing the piano or guitar, this software can directly read and convert the audio into a finished note (Wikipedia, 2014). From the Wikipedia information above, we can further identify this Sibelius software by knowing that this software was created in 1987 by Twins Ben and Jonathan Finn. They were students of Oxford and Cambridge universities until 1993. On the official website of Sibelius, it is said that Sibelius makes it easier for educators to write musical notes and inspire them in various musical compositions that can be used as learning media (Libbyta, 2020) .

Sibelius, according to the author's view in the future, will be increasingly used by many audiences. Because humans will be increasingly busy and multi-work in this millennial era. It is undeniable that every laptop or gadget must be used properly - preferably to seek and explore knowledge, especially in making block notation in this software.

Sibelius Software Functions

Sibelius is part of a software that supports devices in the software where it is arranged with formulas and programming languages. Software is a general term in managing data and instructions that have been made in programming languages to achieve certain goals or projects (Andriyanto, 2020) .

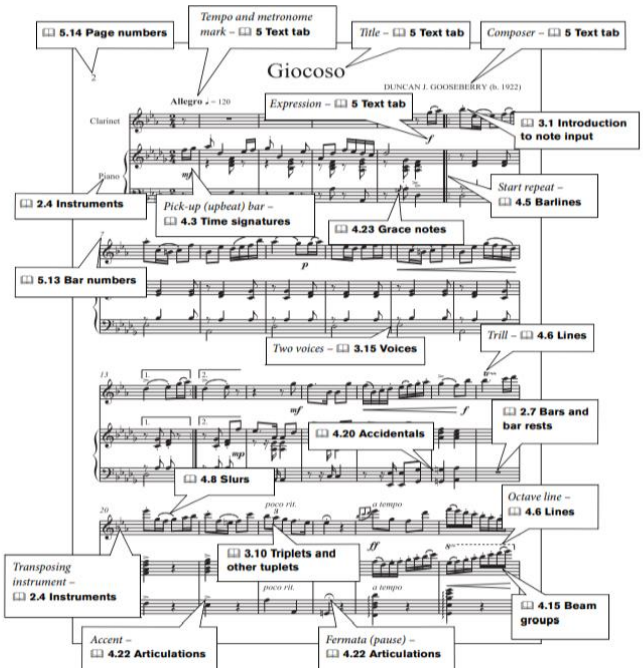
Until now, studies are still ongoing, we have always known that there is no single application to convert musical notes into digital notes. Therefore, an application was developed that is able to convert musical notes into digital notes based on music theory, which has been modified so that the concept does not conflict, but is still in accordance with general music theory. Sibelius is a software that can convert *audio* or *track records* into block notation. Its function is very simple, you just need to download this software, then practice yourself how to use it. Of course, a user of this software must understand a little about reading block notation well so that the

verification of the notation modified by Sibelius becomes more accurate.

In using Sibelius it is necessary to know the tutorial properly and correctly, Sibelius also has a version. The version of the Sibelius tutorial that will be discussed is Sibelius 7.

Sibelius can only be used with audio conversion from a tone, when we want to see the results of the conversion directly it doesn't take long, it only takes about 1 or 2 minutes. So the overall function of Sibelius is very simple, users just insert audio and then edit it computerized.

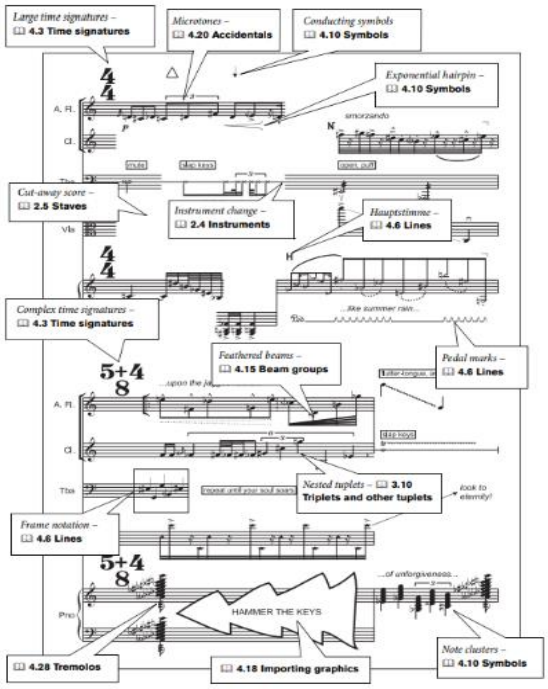
Basic notation



Source: (Spreadbury et al., 2011)

Visual index

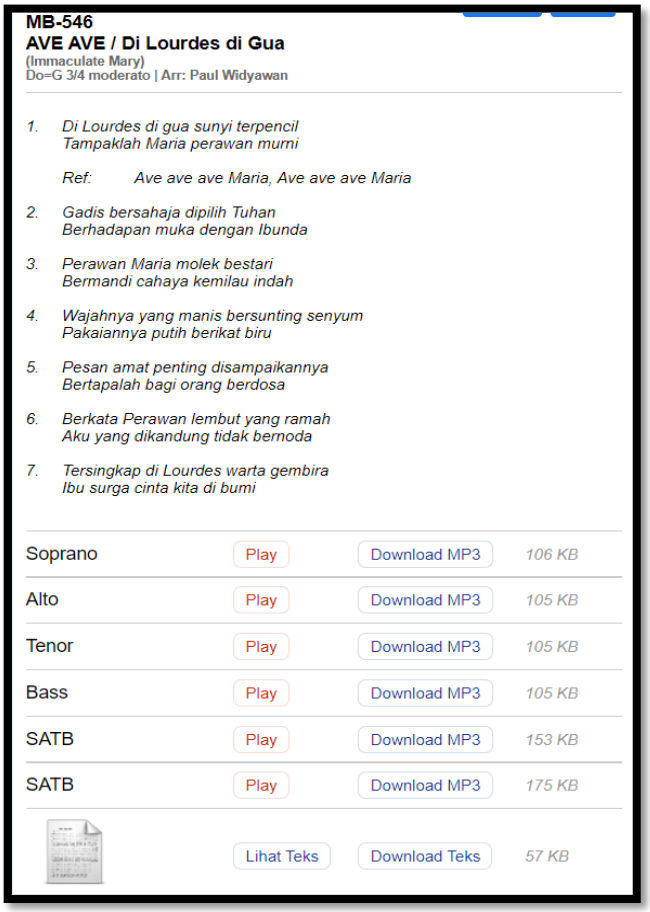
Advanced notation



Source: (Spreadbury et al., 2011)

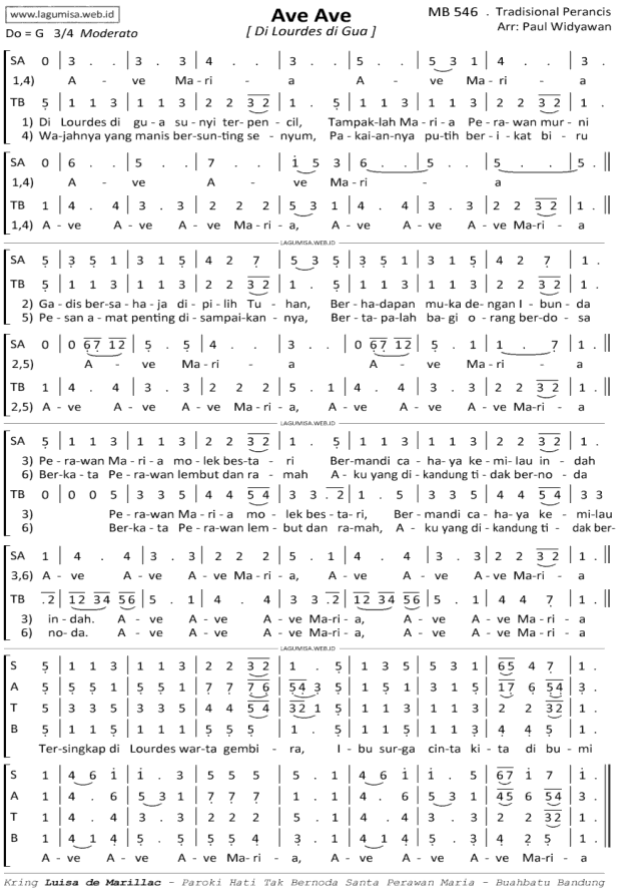
In the picture above, it is clear that using the Sibelius software takes time and learns more so that you can master it better. To get to know the difference between numeric notation and block notation, it takes a song to analyze and develop these two forms of notation. Of course, block notation is a notation that has legal validity and can be used throughout the world. Here the author will perform a song from the devotional hymn entitled " *Ave Maria di Lourdes"* with number notation and converted into block notation. After the Sibelius software is opened, the first step is to open music, then the audio music file will be visible in the *score* , then you can directly

click on *performance* , after you click performance then the audio file will be read automatically and you can hear it repeatedly. Note that when there is a note that you think is not appropriate then you can edit the score. Starting from *editing tempo* , beat, etc.



Source: (Missa, 2020) .

Notation Of Numbers On The Song AVE AVE



Source: (Missa, 2020)

After we see the number notation of this song, we will convert the audio to block notation with Sibelius, the author here will analyze what must be developed with the software media. Through this conversion, it can also later be tested how the tone and pitch of a Sibelius conversion are accurate with the sound of a piano tone, meaning we test the sound of the *do tone* for example,

after that we pick the *do tone* on a piano, then we hear whether it is really accurate.

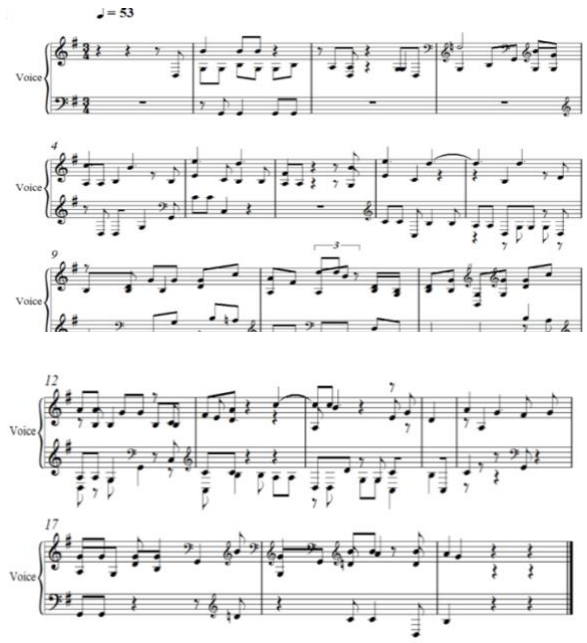
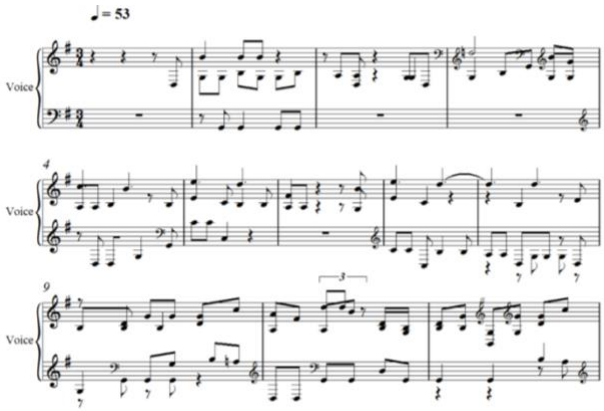


Figure 1, Lagu ; Ave Ave , Konversi dari notasi angka ke notasi balok_ Soprano



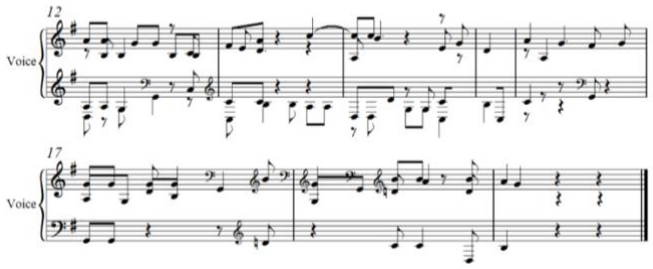


Figure 2 , Song ; Ave Ave , Convert from number notation to block notation_ Alto

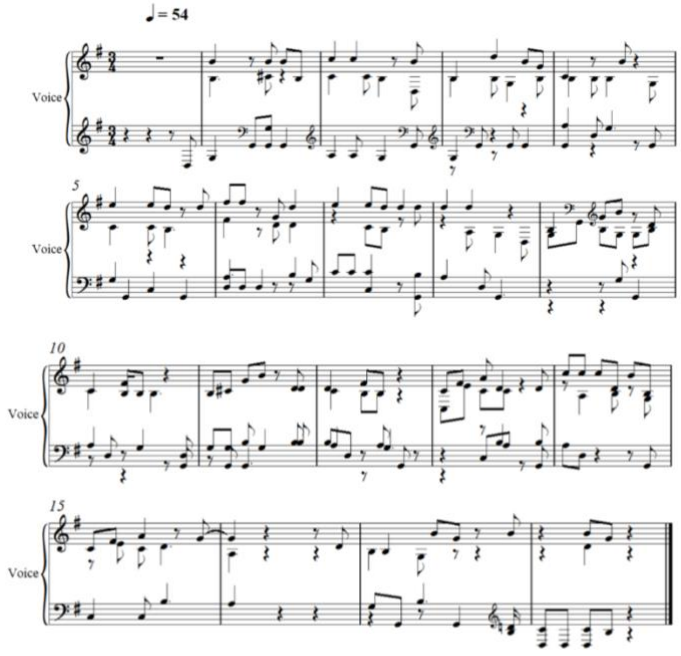


Figure 3 , Song ; Ave Ave , Convert from number notation to block notation_ Tenor

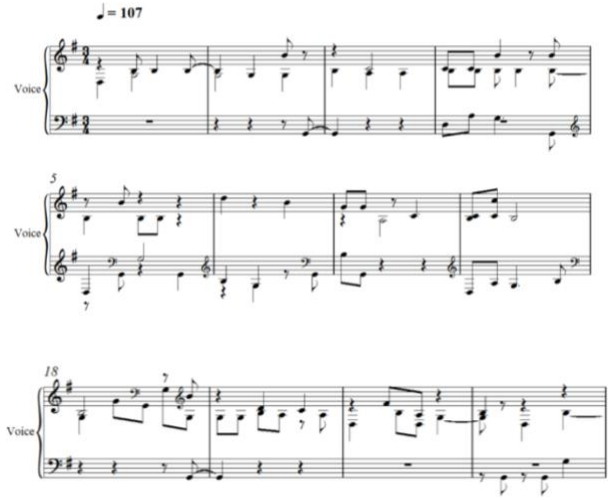


Figure 4 , Song ; Ave Ave , Convert from number notation to Bass_block notation

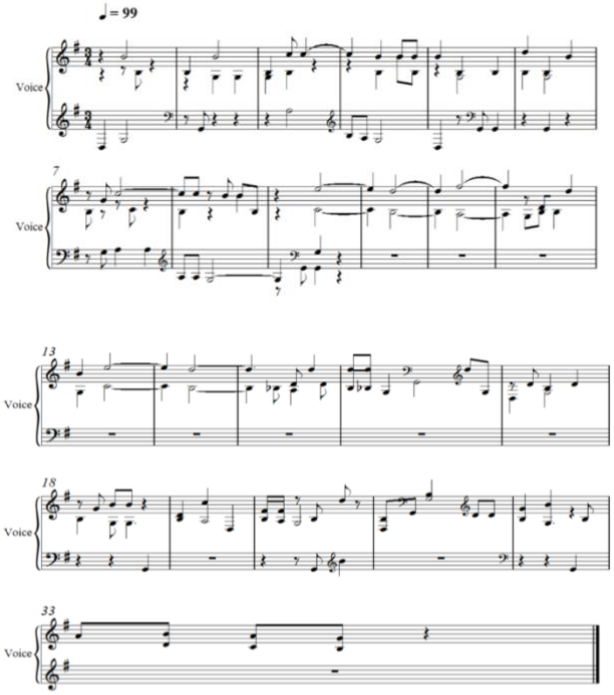


Figure 5 , Song ; Ave Ave , Convert from number notation to block notation_ *All Choir*

II. Method

The method used in this research is to use a qualitative data approach, search for data and then analyze and develop it again into a new discovery which can later be developed into a wider exposure and accepted by the wider community. The data collection is based on a research result and further developed with a hypothesis with the concept of analysis, developed into a broader pattern of coverage.

III. Result and Discussion

So of course there are things that must be developed from this *Sibelius software* where after the author wants to convert, it turns out that he has not been able to convert numbered transcript to block notation. Here the role of an educator is to better evaluate the accuracy of a note conversion result. However, the conversion carried out by Sibelius has reached optimal accuracy with beam notation transcripts if we are careful or if we want to see the results of research in the field by combining quantitative methods can further support the results of this combination method later. However, the author can conclude the results of the conversion of this notation for the qualitative data stage. Some that need to be developed and deepened again is to understand that software is man-made and is

not always a guide that we can apply accurately. With the existence of alternative media notation assistants like this, we hope that educators will be more motivated to understand how to read block notation and can be taught in educational institutions as an effort to balance the ability to read numeric notation and block notation.

From the results of this data collection, starting from the analysis of the patterns and functions of Sibelius, the number notation still cannot be applied to a large number of orchestras, because there is no standard common understanding of the symbol system that was coined. We only know the numbers 1 to 7 and try to use the tone patterns from *do, re,* to *si.* But in general and for audiences who do not understand block notation it will be very difficult for them. However, for a *classical* orchestra concert , block notation must still be used. This becomes a hypothesis from the results of qualitative research, so if there are researchers who want to develop again in a more in-depth direction, it is highly recommended to combine this method to assess the quality of the number notation in the chorus.

IV. Conclusions

In the world of music, many teachers or music teaching staff who really understand music but rarely get an opportunity to take part in educational institutions. Let's say, for example, a band in Indonesia that is already famous, not all of them understand beam notation properly and correctly. But after they finished their band or the band disbanded, how would their life continue. We know all this time their livelihood is from the band itself. It is something that educators need to think about and deepen. When making music is not making music but conveying the content of the music to the community.

People understand that music is not only heard by ear, but can reach wider and become a motivation to support the spirit of life to become professional educators. In music notation, for example, many understand playing the guitar, piano, etc. but it is difficult to read the block notation. From what was described at the beginning of this paper, it is clear that computer programs have made some music educators more *enjoy* in understanding block notation, because understanding block notation takes years of process. It should still be remembered that the conversion of a notation using the media must be evaluated by someone who is knowledgeable in the field.

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