

# JIXIS<sup>TM</sup>

## Graphical Music Systems

### Keyboard Version

## Instruction Manual

### Orientation

A JIXIS Graphical Music System is an easy way for a beginning student of the keyboard to learn how to visually associate the notes of written music with fingering positions on the keyboard. Color-coded labels included with the System are used to temporarily transform the keyboard into a horizontal, line/space graphical format that is equivalent to the vertical, line/space graphical format in which all music is written. Very quickly, it becomes apparent to the student that the written notes on the music line/space graphical format are equivalent to the required fingering positions on the imposed line/space graphical format of the keyboard.

The graphical labels used in the System are typically .5" color-coded, paper labels that are temporarily mounted onto the rear portion of every other white key that is line-related in the music line/space format. The unlabeled white keys between the labeled, line-related keys are then the space-related keys in the music. In use, the rear-mounted color-coded labels are highly visible, but never touched while on the keyboard.

Once the student clearly understands how to compare the relative positions of the musical notes on the line/space graph of ordinary music with the equivalent fingering positions on the line/space graphical format imposed upon his instrument, it becomes a very simple process to play out the required fingering positions in terms of the written musical notes. This way of playing an instrument is called "graphical association" or "graphical correspondence."

It also then becomes an easy process to learn the names of the various playing positions and the musical note positions, and so to gradually "*overlook*" the labels and just play the instrument in terms of the written music. At that point the student may begin to play and learn musical techniques using more traditional methods, that is, by using a progressive musical course, or by taking lessons from a professional teacher.

The JIXIS Graphical Music System is not itself a progressive music course. Only the most basic graphical music concepts have been presented here in order to explain the method and use of the System. Sheet music may be obtained at music stores or

your local library. If you are still having difficulty understanding basic music concepts after you have read the Instruction Manual, you may wish to obtain a basic music course for your instrument and utilize the JIXIS Graphical Music System as a means to help you complete the course successfully.

There is no immediate need for you to obtain any music in order to learn how to use the System as a means of reading music. For the most part, early use of the System is limited to a self-contained consideration of the instruction material. When you are familiar with this material you will have a better insight on what level of music you wish to attempt to play using the System.

Consider that you will almost immediately be experimenting with the playing of virtually any piece of music written for the tonal range of your instrument, and not just “easy play” colored or numbered music. And you will be learning as you play! The more that you play, the more that you will learn about what it means to play without using the system— because your entire effort will be toward attempting to override the System and using your playing experience to guide you.

The purpose of the System, as explained in the Instruction Manual, is to progressively explain to the student:

- How to use the Graphical Labels and Basic Music Information Sheet to locate the fingering position for any written musical note in ordinary music *so that you can actually play out the written music without first learning either the note or fingering position names.*
- How to use the Graphical Labels and Basic Music Information Sheet to *easily learn the letter names* of the playing positions and the notes you are actually playing out *without going through memorization exercises.*
- How to use the knowledge of note names and playing position names with the “built-in” reference systems of raised black key sets on your keyboard, so that you can remove the labels and begin to *play an unmarked instrument with any music.*

The Instruction Manual will explain to you how basic music concepts are interpreted in a graphical manner, and how the color coding being used is just a simplified way to remember the line and space order within the graphical method until it is clear in mind, and thus obvious to you when you view ordinary black and white music.

Once you understand what it feels like to actually play out written music by graphical association methods, and have begun to learn the note names and playing position names, you will find that more advanced musical theory and practical playing advice will be much easier to interpret and utilize.

If you have not yet done so, please print out the Basic Music Information Sheet so that you may follow along with the Instruction Manual. And also, if you have not yet applied the color-coded Graphical Label Set to your instrument, please do so before reading any further. This will allow you to visually reference the labeled keyboard as you read the instructions.

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## The JIXIS Graphical Music System for the Keyboard

All of the numbered Figures referred to in the text below will be found on the Basic Music Information Sheet. Your color-coded keyboard should be in view as you proceed with the instructions.

Ordinary black and white music is built up from a simple arrangement of straight, horizontal and parallel lines called a staff. A basic staff of five such lines is shown in Fig. 1.

Musical sounds or *notes* are symbolized by using oval markers, empty or darkened, and with attached lines called *stems* and with or without smaller curving lines on the stems called *flags*. Examples of musical note symbols are shown in Fig. 2.

Each of the note symbols of Fig. 2 is drawn differently to indicate a different length of time that the musical note is to be played, but each of the symbols serves the same purpose in relation to the staff: *To act as a position marker on the staff, higher when the note tone is higher and lower when the note tone is lower.*

The positions that a musical note may use are of two types, being either a *position on a line* or a *position on a space* between two lines. The open or *implied* space above a top line or below a bottom line is also called a space position. Fig. 3 shows an orderly left to right progression of “*quarter notes*” ranging from a lower tone “*ledger line position*” to a higher tone “*ledger line position*.”

Any diagram or picture-like arrangement of lines and symbols that displays information to its user is by definition a *graph*. Ordinary music, which uses a staff and musical note symbols, is thus actually a *vertical graphical format*.

Graphical formats representing *line and space* music information can be *imposed upon* various musical instruments, such as keyboard keys or stringed instrument fingerboard positions, so that *the same information that the vertical musical line and space graph contains can be easily visually represented by the color-coded graph horizontally imposed on the otherwise unmarked white keys of the keyboard.*

Again, it is *the vertical graphical format of the lines and spaces of the music staff* which is being *horizontally imposed on the white keys of the keyboard* (using temporary removable labels) so that *what is positional information for a musical note symbol on the vertical music graph will be visually obvious as a fingertip position on the horizontal graph imposed on the playing area of the instrument.*

Considering written music then as a vertical graphical format, that is, as the graphical system which the music composer uses to record the musical note symbols and all the other graphical symbols which convey information to the musician about how the music is to be played, we may proceed to explain the JIXIS Graphical Music System as the relationship between *two equivalent but differently orientated graphical systems*, the one obvious as a vertical written music graphical system, and the one as a horizontal graph hidden within the previously unmarked white keys of the keyboard.

All of the graphical symbols on the vertical graphical format of the music staff are read out from left to right across the music staff as though an *imaginary vertical line* were being moved across the staff from left to right according to the *tempo* or speed at which the notes are to be played. This left to right read-out then tells you the order in which to play out the musical note symbols on your keyboard.

The proper play-out of the notes in Fig. 3 would then be (from left to right) from the lowest note to the highest note as the imaginary vertical line would pass through each in that order of read-out.

Two graphical formats or staves are generally used to record keyboard music as shown in Fig. 4. The upper or *treble staff* is marked by a graphical symbol called a *treble clef*. The lower or *bass staff* is marked by a symbol known as the *bass clef*.

When the note range (low notes to high notes) will pass beyond the recording range of the graphical format of the staves, shorter additional lines (with equally shorter additional spaces and implied spaces) are used. These shorter lines are called *ledger lines* (and so, *ledger spaces*). The tonal range shown in Fig. 4 then goes from a lower sounding C letter name—the note position on the lowest line shown below the bass staff—to a higher sounding C letter name—for the note position on the highest line shown above the treble staff. The ledger line shown between the lower bass and upper treble staves is then known as the *middle-C* note position, and has a musical tone in-between the other two C note tones.

This seems like a simple enough arrangement to follow until you look closely at where the other two C note positions have been written into the graphical format of the staff spaces of Fig. 4. The lower space C falls into the *second space up within the bass staff*, but the upper space C note falls into the *third space up in the treble staff*.

This confusing order of note display occurs because each line and space position carries only one letter name in a repeating pattern of A B C D E F G A B C D E F G etc., so that sometimes a letter name for a tone (note) will fall on a space and sometimes on a line.

By beginning to learn to play music *by graphical association*, using the relative line or space positions of the notes as a guide, rather than first playing out the notes by their letter name order, much of this early confusion will be avoided.

Usually only one staff or the other will be used to record the music for a fingerboard instrument. This single staff is then used with multiple ledger lines and spaces below and above the staff. Which staff is used will depend upon the tonal range of the instrument, as for example, a bass guitar will only use the bass staff and note range from a lower E note to a higher D note as shown in Fig. 5, and a standard guitar will only use the treble staff and note range from a lower E note and a higher B note as shown in Fig. 6. A keyboard will generally always utilize both treble and bass staves.

If you compare Figs. 4, 5, and 6, you will see that there are more ledger lines in Figs. 5 and 6 than seem logical, especially when you look at where the middle-C position is located in each of the figures. The reason for this odd display of ledger lines will become clear in a moment.

In written keyboard music it is very common to keep a wide separation between the two staves so that the right hand may play out the keyboard notes which fall in the higher tonal range which covers the right side of the keyboard length, and so that the left hand may play out the notes recorded for the lower tonal range which covers the left side of the keyboard length. This wide separation between the staves allows the composer to write out music for the left hand in a manner similar to that shown in Fig. 5 and for the right hand in a manner similar to that shown in Fig. 6. That is, by using *multiple ledger lines and spaces above the bass staff and below the treble staff*.

Fig. 7 shows the actual line-space order display that applies whenever ledger lines and spaces are used—*This true line-space order never changes*. It just seems to change because of the use of the bass staff or the treble staff to record musical notation above and below their respective five staff lines. But the ledger lines and spaces in both staves always follow the order of ledger lines and spaces just as they appear in Fig. 7.

When one staff is used as in Figs. 5 or 6 or when two staves are used one above the other as in Fig. 13, and ledger lines and spaces are used, the ledger lines and spaces above and below the individual staves are following *exactly the same order* as the line-space order of Fig. 7.

Or said another way, whenever notes are recorded on ledger lines or spaces *above* the bass staff, the first ledger line up from the top staff line is *always middle-C*, and every other ledger line above this first middle-C ledger line is just another way of graphically representing the staff lines of the treble staff in their ascending order of note letter display as shown in Fig. 7.

Similarly, whenever notes are recorded *below* the treble staff, the first ledger line down from the lowest staff line is *always middle-C*, and every other line and space of the ledger system *below* the middle-C ledger line is just another way of graphically representing the staff lines and spaces of the bass staff in the same descending order of note letter display as appears in Fig. 7.

The only *constant ledger line* between the upper treble staff and the lower bass staff (as shown by the middlemost green line in Fig. 7) is the *middle-C reference line*. All other ledger lines simply display the note order of the other staff.

It is important to keep in mind that the note order of Fig. 7 is the only true note order in written music, and that this note order follows through in the A B C D E F G repeating pattern through the ledger lines and spaces *after* the appearance of the middle-C reference line, just as though the other staff were actually present in its entirety at that location in the music.

The seven letter names for the tones and notes, A B C D E F G, repeat up the tonal scale of the instrument from its lowest tone to its highest tone, and so in the written music from a lower graphical position to a higher graphical position. Any sequence of seven letter names plus the next highest letter name are together called an *octave*. Thus ABCDEFGA or BCDEFGAB or CDEFGABC and so on, are each octaves. The basic letter names in succession are then called the *natural tones* in the octave.

The natural tones of the octave repeat themselves along the length of the keyboard instrument on the white keys only, as partially shown in Fig. 8. On a full length piano keyboard, the letter names of the keys will start with an A on the furthest white key to the left, and repeat as ABCDEFGABCDEFG and so on along the individual white keys from left to right until they reach a highest C tone white key furthest to the right on the keyboard. Keyboards with less than 88 keys may start with any letter named white key, but usually start with a C position left end key and progress as CDEFGAB CDEFGABC and so on through to the last white key on the right.

In Fig. 8 you can see that *the natural tone order of the white keys is always in a specific letter name order in relation to the raised black keys*. The C positions *always* fall to the left of the two black keys, and the F positions *always* fall to the left of the three black keys, and all of the other natural letter name positions *always* fall in the same place in relation to the *two and three black key sets*, and *the black keys themselves always repeat in the same two key and three key patterns*.

If you memorize this simple relationship of the seven letter names for the white keys in relation to the two and three black key sets, *you will always be able to remember the letter name of any white key in the keyboard pattern*.

Before explaining the role of the black keys of the keyboard or any further basic music concepts, we will first consider the white natural tone keys in relation to the JIXIS Graphical Music System.

In Fig. 9 a full range piano keyboard diagram has been set on an angle, with its lower tonal range on the left, and with its higher tonal range on the right. Starting at the bottom left and moving toward the upper right of Fig. 9 are a series of lines, which represent the lines of the staves, and ledger lines as explained for Fig. 7.

You will see that each of these staff and ledger lines connects with a white key natural tone position on the keyboard, and that every space between the staff and ledger lines also connects with a white key on the keyboard, so that *every white key along the length of the keyboard is alternately connected either to a line or a space in the graphical music format*.

Said in another way, every white key (or natural tone position) along the length of the keyboard represents either a *line-related* position or a *space-related* position in the graphical music format.

There is then a *direct “graphical correspondence”* between the lower-to-higher order of the staves and ledger line system and the left-to-right order of the white keys (or natural tone positions) along the length of the keyboard: *Every other key is a line-related position, and every key in between a line-related position is a space-related position*.

But when the white keys of the keyboard have no markings on them to reveal which key is line-related and which is space-related, there is no immediate visual way to know which key is which, and so there is no immediate way to make a *“graphical association”* between a note written on a line of the music graph and the proper line-related key to which it would graphically correspond, or between a note written on a space of the music graph and its space-related counterpart key on the keyboard.

In order to utilize the *graphical relationship* between the written music graphical format and the graphical format design of the keyboard as a means of *associating written note positions with corresponding fingering positions*, the JIXIS Graphical Music System uses temporary, removable, color-coded labels to clearly mark for you which alternate set of white keys are line-related in the imposed graphical format of the keyboard. The white keys that are then in between the labeled keys represent the space-related positions in the written music.

If you will now view the color-coding method of Fig. 9 (or your color-labeled keyboard), it will be a brief step to understand how the color-coding method of the System serves to highlight the staff and ledger line sequence across the length of the keyboard.

You will see that there are three Green labels. The middle-most Green label represents the *middle-C white key and middle-C ledger line position*, and *divides the keyboard and the color coded staffs into an equivalently color-coded left and right order*.

The other two Green labels then *represent the C positions* on the keyboard which *fall two octaves to the left and right of middle-C*, and so *the line-related C positions which fall two octaves below and above middle-C in the music*. You will then see that there are four Red labels. Each Red label indicates an upper or lower staff line for the bass staff on the left and for the treble staff on the right.

After considering Fig. 9 or your color labeled keyboard briefly, it should become obvious how the Green labels highlight the middle-C position and the C positions two octaves away from middle-C, and how the Red labels highlight the two sets of staff end line positions. The rest of the color-coding method should then fall in place.

The two yellow labels indicate the two staff midline positions, and *the two sets of Blue labels between the respective Reds and Yellows indicate the two sets of intermediate staff line positions*.

The remaining alternate Blue labels then mark the remaining line-related positions on the white keys and complete the staff and ledger line music graph format across the keyboard length.

On Fig. 9 you will see that the aforementioned four colors have been added to highlight the staffs and ledger lines, and the same four colors have been added to the rear of the white line-related keys to which those colors apply. Fig. 9 will help you to initially remember the order of the four colors being used as highlighting for the various line positions.

After a few hours of practice “*mentally projecting*” the four-color order from Figs. 7 and 9 into the line order of the music, you will find that the color order will simply “*impose itself*” on the music you are playing, and that the Basic Music Information Sheet need not be continuously used for reference.

At this point in the explanation of the JIXIS Graphical Music System, it should be fairly obvious as to how the natural tone white keys of a keyboard are to be graphically associated with the written notes of any black and white music sheet:

If a note rests on a line in the written music, ask yourself what the associated color of the line should be in the overall color coding order of Figs. 7 and 9, and then depress that color-labeled key.

If the note rests on a space in the music, then ask yourself what the associated color of the next nearest line or lines should be in the overall color order of Figs. 7 and 9, and then depress the unlabeled key between the proper colors.

Fig. 10 shows a typical keyboard music graph arrangement with a wide separation and several ledger line positions. Before reading further, attempt to locate these note positions by graphical association both in Fig. 9 and on your labeled keyboard. Again, the multiple notes should be *read out from left to right as though an imaginary vertical line were moving from left to right across the graph of the music.*

Each note touched by this imaginary vertical line is meant to be played *at the same time*. Thus any series of notes that fall in the same vertical line are meant to be *played together at the same time*. Notes that are arranged in vertical sets to be played by one hand or the other all at the same time are called *chords*.

Probably the two most difficult problems you will have in learning the proper color order of the music lines and spaces and the corresponding playing positions, will be in dealing with ledger line color sequences, and in the playing of chords which enter ledger line sequences.

The main thing to remember about ledger lines is that the color order in the System flows directly from the upper end of the bass staff color order directly into the lower end of the treble staff color order with the middle-C Green ledger line position being the only “real” staff separation point on the keyboard.

The opposite case is then also true: If you are viewing ledger lines which are below the treble staff, their color order flows directly into the bass staff color order with the middle-C Green ledger line position being the only “real” staff separation point on the keyboard.

If you look closely at the color-line order of Figs. 7 and 9 and the equivalent color-coded label order of the keyboard picture in Fig. 9, this idea will remain clear when you are attempting to graphically associate various ledger line and space notes. As stated earlier, the wide separation between the two staves is simply a convenient way of separating what the left and right hands should normally play out on the keyboard. In fact, *in the color order of the ledger lines there is no actual separation between the staves other than the Green colored middle-C reference line position.*

Thus if you see a note written on a line or a space several ledger lines below the treble staff or several ledger lines above the bass staff, the color order remains constant as though the staves were connected by the green middle C color just as they appear



*connected in the color order of the keyboard labels and in the color lines of Figs. 7 and 9.*

The main thing to remember about *chords* is that *each individual note in the vertical pattern is to be separately interpreted by graphical association*, and then *all the notes are to be played at the same time* (unless indicated otherwise by other notation).

Now that you have a basic idea of how to play a graphically labeled keyboard to connect or graphically associate the written natural notes with the line and space related natural tone keys, let us consider what the *black keys* are used for and how they are *graphically represented* in music writing.

Earlier we said that any eight *natural tones* (or *white keys*) in a row, such as CDEFGABC, would make up an octave. We will now add to that definition. In addition to its eight natural tones, *every octave has five additional “accidental”—or “sharped” and “flatted”—tones*. These added tones in the octave help to balance out the way the music will sound when written for different tone patterns or *key signatures*, but these added five tones also somewhat change the meaning of what a tone actually is so that in a full octave of thirteen successive tones—*eight tones plus five sharp/flat tones*—the tones are called “*semi-tones*” or “*half-tones*.”

To *sharp* a note means to *raise its sound by one semitone* and to *flat* a note means to *lower its sound by one semitone*. To indicate this in music writing, the sharp sign symbolizes a sharped note ♯ and the flat sign ♭ symbolizes a flatted note.

Thus to indicate a sharped or flatted note on the music line and space graph, *one first writes the note symbol as a natural tone in its proper line or space position in the graph, and then places one of the two signs before it*. Examples of sharped and flatted notes are shown in Fig. 11.

On a standard keyboard, *the black raised keys are called the accidental or sharp/flat keys*. Fig. 12 shows the relationship of the sharp/flat letter and symbol order adjacent to the natural letter tone order of the white keys. When you see that notes have been sharped or flatted as in Fig. 11, *you should first locate the natural tone position by graphical association. If the note has been sharped you should depress the black key to the immediate right of the natural position. If the note has been flatted you should depress the black key immediately to the left of the natural position*.

The only exception to this black key rule of ♯ right and ♭ left is where the white E and F, and the white B and C keys meet, as *each is respectively regarded as the sharp and flat of one another using the general ♯ right and ♭ left rule*.

Before reading further, attempt to locate the sharped and flatted notes of Fig. 11 on the keyboard of Fig. 9 or on your labeled keyboard.

Musical compositions often have many sharps and flats. To simplify the writing and reading of music, the composer will often place *sharp or flat signs alone on the lines and spaces of the staves at the beginning of the composition immediately to the right of the clef signs*, as shown in Fig. 13.

These sharps and flats number from one to seven and are called the composition's *key* or "*key signature*." What the key signature is telling you to do is this:

- Determine what the name of the note is for the line or space where each of the sharp or flat signs appears near the clefs, and then
- According to the sign (# or ♭), *sharp or flat that "note name" every time you see a note with that name appear in the composition.*

Remember that *notes having the same letter name may appear at different locations in the tonal range of the composition, that is, in different octaves, and so on different lines or spaces than the ones used to indicate the key signature of the composition.*

For example, in Fig. 13 a key signature is shown which has an F# but every F named note in the composition *must then be sharpened* as indicated in Fig. 13 by the eight F named note positions written into the staves and ledger line system.

The only time that a note name indicated in the key signature is not to be sharpened or flattened in the piece is when its musical note is preceded by a *cancellation sign* known as a *natural sign* which is symbolized as ♮ (shown in Fig. 14).

The natural sign will then only cancel the sharp or flat status of the note position that it precedes, and only for the remaining distance to the next vertical bar line in the music.

Fig. 14 shows several vertical bar lines. The distance, left to right, *between* the bar lines is called a *measure*. Often an extra sharp or flat sign is needed for use in a measure of music. *This added-in accidental sign only applies for the length of the measure.* The natural sign used for another note in that position within the same measure will then *cancel the sharp or flat for the remainder of that measure* as shown in Fig. 14.

In your first attempts at playing out music written in keys other than the key of C (which has no sharps or flats in its signature), you may wish to simply go through the composition and "*pencil in*" the required sharps and flats after locating these note names in the composition through graphical association.

Musical timing is a complex subject in theory and in practice. Therefore only the most basic issues of the subject will be touched upon here. When you first start to use the JIXIS Graphical Music System to play your keyboard, you should not unduly concern yourself that what you are playing out on your instrument does not closely resemble the intended melody. Once you have successfully used the System as a means of locating the written notes on the playing area of your instrument, it will be far easier to gradually adjust to the idea of timing the length of play for the different notes than if you overly concern yourself with timing while you are first learning to make the necessary graphical associations.

Fig. 15 shows several common note symbols and their respective *rest symbols*. Each note and rest indicates commonly used *time values*, “*counts*,” or “*beats*.” A *rest symbol* counts out a period of silence in the music. The open oval note without a stem is called a *whole note* and typically has four counts; its rest symbol thus indicates four counts. The next open oval note with a stem is a *half note* and typically receives two counts; its rest symbol thus indicates two counts. The next darkened note with a stem is called a *quarter note* and typically receives one count; its rest symbol thus indicates one count. The next sequence of notes with flags on their stems are *eighth*, *sixteenth*, *thirty-second* and *sixty-fourth* notes, and typically receive progressively smaller fractions of time during which the note is held; their rest symbols thus indicate typically lesser fractions of silence.

The timing of the music then depends upon several factors

- The given *tempo* or playing speed suggested for the composition,
- The *time signature* or fractional number at the beginning of the music, and any added-in graphical symbols or notation which affect the length of time the various notes are to be played.

The tempo of the music will usually be given in English or Italian at the beginning of the piece, for example, Fast or *Allegro*, Moderate or *Moderato*, or, Slow or *Adagio*.

The *time signature* of the piece appears *to the right of the key signature area*, and is usually a fractional number such as 4/4, which is also called “*common time*” and sometimes replaced by a large C, or simply understood to be the timing of the piece when no time signature appears.

A time signature of 4/4 is shown in the left section of Fig. 15. The top number indicates that there are to be four counts or *beats* to each measure, and the bottom number indicates that a *quarter note* is to receive *one count*.

In common time a *whole note* receives four counts, a *half-note* two counts, a *quarter-note* one count, an *eighth-note* one-half count, and a *sixteenth-note* one-fourth count.

The simplest way to maintain the count or beat of the composition is to *tap your foot while counting* the lengths of play required for the various notes, using the up and down movement to follow along with a mental counting of “One and Two and “Three and Four” and repeating this as you proceed through the music. It is better to keep the tempo slow on whatever you are playing until your foot tapping and counting is a natural procedure.

The length of time a note is held may also be affected by the placement of a “*dot*” behind the note, or by a “*tie line*” placed between two notes with identical positions. A dotted note or a dotted rest will then have their normal time values *plus one-half* of that time value, that is, in combination as a total length of time for the note to be held. Ties between identical notes *combine two time values* into one length of time for the note position to be held. Examples of dotted and tied notes are shown in Fig. 16. Further explanations of musical notation and theory may be obtained elsewhere as you progress into a further study of music.

As you become more familiar with the repeating order of the note letter names within the repeating black key set patterns, you may begin to use a process of “reverse comparison” to easily name the written notes you are playing by graphical correspondence.

It will help at that point if you actually *say in your mind the letter names of the notes you are playing in terms of the playing positions you already know*. As your practice with reverse comparison continues, you will realize that you can eventually simply view the written notes in the music and know what their letter names are.

Having this knowledge of note names which correspond to playing position names will eventually allow you to remove the labels for good and to *play the unmarked keyboard simply in terms of the black key set patterns as reference markings “built-into” the keyboard design*.

As you practice different musical pieces you should occasionally attempt to move the tonal range of what you are playing by graphical association to different octaves where the graphical codings do not match but where the note name and key name order is the same, using the black key sets for guidance.

You will also find that in various compositions a sign called “8Va” is used. This sign indicates that you are to switch the tonal range of the written notes up or down one octave depending upon its appearance above or below a staff. Such note range shifts will bring you to a point where the graphical codings do not match. If you locate the written notes by graphical association and use the black key sets to find the same notes in the next octave over you will be able to easily transfer the note sequence indicated.

After you have practiced with graphical association for a time, you will find that it has led automatically to a higher stage of playing that might be called “*graphical sight-reading*.” What will be happening is that you will have become so familiar with the “*feeling*” of where the written note positions fall on the keyboard that you will rarely have to look and see where your fingers are going to find the proper playing positions for the notes. You will then be more or less “*feeling your way*” up and down the length of the keyboard and *using the raised black key sets as guides to where your hands are*.

To promote this method of feeling your way to the proper positions, try and use your thumbs as “*movable reference points*” for locating your hand positions along the keyboard length. Whether your hands are in a closed cupped position, or in an open expanded position, you can use your two thumbs as focal guides to where your fingers are along the keyboard length, and so as guides to where your fingers are able to reach. This procedure will help you to foresee where in the music it may be possible to introduce “*pivoting techniques*” for smooth key transitions, and to realize where complete hand movements (or “*jumps*”) are required.

To pivot means to use the thumb as either a place for swinging the fingers over the thumb, or to swing the thumb under the fingers to the next keying position. Simple musical pieces will have small 1 through 5 numbers written adjacent to certain

notes. These numbers correspond to a standard 1 through 5 finger numbering system where the thumb of either hand is 1 and the adjacent fingers are 2 through 5, as shown in [Fig. 17](#). Using these numbers will assist you to learn proper fingering habits.

### **Learning to Play the JIXIS Way**

There is no simple way to musical proficiency. Expert keyboard play requires disciplined effort over extended periods of time. The JIXIS Graphical Music System can only assist you by helping you to locate the proper fingering positions: JIXIS cannot replace the professional music teacher. However, if one limits himself to the graphical layout of relatively simple scores, there will be no actual need to learn more than basic music notation and techniques in order to play such pieces well.

When you have chosen an appropriately written score, that is, one that has a limited amount of musical notation, place it before you at the JIXIS-marked keyboard and attempt to do the following.

Relax. However briefly, it is advisable to stretch and clench your fingers in alternate cycles, and to stretch and rotate your wrists, arms and shoulders to come to a point of relaxed composure. Assume a straight-backed posture and place your hands over the keyboard.

Concentrate on the graphical relationship between the JIXIS-marked keyboard and the written music. Try and imagine where the color-coded positions of the keyboard appear on the lines and spaces of the musical composition. Then try to *mentally project* the reference colors of the keyboard into their proper positions on the score.

Concentrate on the fact that each respective, color-marked white key represents a specific line-related position in the music, and that each unmarked white key represents a space-related position in the music.

Center your attention on the Green middle-C position and attempt to “*feel out*” the keyboard distance to the Green C-positions two octaves to the left and right of middle C. Use your peripheral vision as possible while imagining that green highlight lines have been added to the C line-positions in the score.

Using the same method, attempt to locate the Red staff line positions, and then the Yellow mid-staff line positions, and finally the alternate Blue ledger line positions. And again, *mentally project* each of these colors into their appropriate position on the score lines.

Try to avoid jerking head movements between a perception of note line or space position and finger placement on the keyboard. When you are certain that you are “*perceiving color*” in the critical score line positions, you will be ready to begin playing the score.

As you begin to play, imagine that there is a vertical line running through the horizontal lines of the score starting at the beginning of the piece. This imaginary vertical line will be moving from left to right across the scored notes and symbols. According to which staff set the notes belong, all notes which lie on this imaginary line will be graphically played out at the same time, even if the notes are set forth in groups or chords.

Initially it may seem awkward to generate the required belief that a color highlighted line/space array can actually allow you to "*play out*" the musical score, but it will become obvious that you are "*playing music*" once the score-to-keyboard note correlation process begins.

As you learn to play out various pieces of music, bear in mind that you have three main objectives to fulfill in order to be eventually enabled to "*overcome*" the graphical labels in order to play out music on the unmarked keyboard. These objectives are:

- To apply basic music notational understandings to the music *as you are playing*.
- To learn the keyboard and written note names by *graphical association* and *reverse comparison*.
- To learn to reference yourself along the keyboard length *by using the black keys as guides*—

When you have achieved these objectives, and your graphical play has become reflexive and natural, you should test yourself on an unmarked keyboard to determine to what extent you have actually learned to gauge your playing in terms of the raised key sets. When you are able to mentally project the JIXIS Graphical Music System color highlights into an unmarked keyboard in the same way that you originally mentally projected the four-color system into the black and white score, you will have achieved the ultimate purpose of the System, *which is to carry the system in mind for use on any unmarked keyboard*.

It is our sincere hope that you are able to use the JIXIS Graphical Music System as a starting point for a lifetime of musical enjoyment. There are few things in life more satisfying than to be able to play a musical instrument. And there really is no simpler method to begin to learn the basics of playing than by beginning with the JIXIS graphical association method.

*Have fun, and enjoy the wonder of making music!* ♪♪♪♪♪

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