



**Marching Band Drill Design Software**

A stylized illustration of a marching band member in a purple uniform and tall shako hat, holding a tuba. The background shows a blurred crowd of other band members in similar uniforms.

# **Reference Manual**

**ver 6**

**Creative Works AUCS**

---

---

# Contents

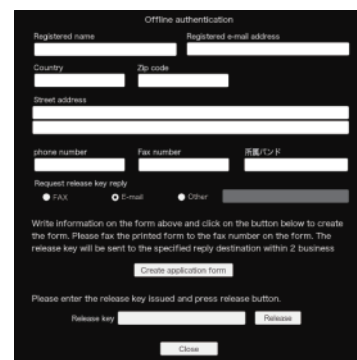
1	About Drill Studio .....	P2
2	Installation and Setup .....	P3~P7
3	Feature unlimitation and Activation .....	P8~P10
4	Screen Structure and basic usage .....	P11
5	Types and Roles of the Tool Palette .....	P12~P14
6	New Drill and Adding Performers .....	P15~P18
7	File Open/Save and Import Sound .....	P19
8	Creating and editing Counts .....	P20~P22
9	Title settings .....	P23
10	Changing the Sheet Design (Advanced settings) .....	P24~P25
11	Stage setting and change .....	P26
12	Creating and editing Sheets .....	P27~P28
13	Drill Production .....	P29
14	Select Performer .....	P30~P32
15	Performer Placement .....	P33~P35
16	Editing tools .....	P36
17	Camera angle setting .....	P37~P38
18	Display of Models and Marks .....	P39
19	Play, Stop, and Fast Forward drills .....	P40
20	Set March Style .....	P41
21	Set Action .....	P42~P45
22	Follow-the-leader / Pinwheel .....	P46~P50
23	Performer Mark and Performer Label .....	P51~P52
24	Insert Shapes, Texts, Images .....	P53~P59
25	Creating Prop Objects .....	P60~P62
26	Lighting settings .....	P63
27	Original Costume Setup .....	P64~P65
28	Exporting movie and printing .....	P66~P67
29	Uploading to DSM Server .....	P68
30	Useful Functions and Shortcuts .....	P69



## Offline Authentication (Package Plan only)

Offline Authentication allows you to use the service offline without restrictions and to continue using it after your contract expires. Click the Offline Authentication button and enter all information.

[Click on "Create Application Form" and you will see a PDF file like the one on the right. Once you have faxed or e-mailed this form to us, we will send you an offline key within two business days by the method you specified. The offline key is different from the activation key.

A PDF form titled "Drill Studio 2018 ver 4 offline activation application form". It contains fields for: Registered name, e-mail address, Country, Zip code, Street address, Affiliated brand, Phone number, Fax number, Reply method (radio buttons for FAX, E-mail, Other), and Mailing code. At the bottom, it provides contact information: "Please send this form to: 075-352-4145 aucs.creat@gmail.com" and a section for "オフラインキー" (Offline Key).A screenshot of the "Offline authentication" web interface. It has fields for "Registered name" and "Registered e-mail address". Below these are fields for "Country", "Zip code", and "Street address". There are also fields for "Phone number", "Fax number", and "回信バンド" (Reply Band). A section for "Request release key reply" has radio buttons for "FAX", "E-mail", and "Other". A "Create application form" button is present. At the bottom, there is a "Please enter the release key issued and press release button." section with a "Release key" field and "Release" and "Cancel" buttons.

Enter the offline key in the "Offline Key" field on the offline authentication screen and press the "Activate" button.

If it is entered correctly, it will be authenticated and unlocked.

Offline authentication can be performed on two computers.

The same process is required for each computer you are using.

## Activation when changing or replacing your computer

The key is valid for two PCs only when used by the contracted user.

If you move or replace your computer, you can access your Drill Studio Account to delete the registered device information and register a new device.

If you do not know how to do this, or if you are unable to connect to your account, please contact us and we will verify your identity and reset your registered information.

## About Version Up

Drill Studio is constantly evolving.

To ensure that you are the first to use the latest features that become easier to use and add useful functionality, you can upgrade to a newer version free of charge during the term of your contract.

When a new version is released, a notice will be displayed when the software is launched.

Version upgrades are not automatic, and can be done at any time.

For those who do not have an online environment (package plan customers), the latest CD-ROM is also available.

## Changing User Information

The sale, transfer, or loan of activation keys is prohibited.

If your information (address, phone number, email address, etc.) has changed, please go to the Drill Studio Account site to make the necessary changes.

If you do not understand the process or have trouble connecting to your account, please contact us.

If we do not have your correct information on file, we will not be able to provide you with support or send you important notices.

## What is Drill Studio?

Drill Studio is a computer software program that allows you to simulate marching band formations realistically in 3D, create more effective drill designs, create and print contest sheets, and more. Drill Studio is a PC software application that allows you to create 3D realistic simulations of marching band formations, create more effective drill designs, create and print contest sheets, and more. The software can reproduce all kinds of situations, and by exporting to video and applications, you can immediately distribute accurate contest sheets to your members. This helps to improve practice efficiency and show quality.

## Drill Studio can do this

- Intuitive creation of contesters
- Placement of performers at precise intervals
- Draw beautiful shapes and curves
- Easy creation of follow-the-leader, pinfields, and other special movements
- Edit and preview from any perspective in 3D.
- Fully synchronized with music, including tempo changes and live sound.
- Create props and other objects at will.
- Flexible insertion and placement of text, graphics, images, etc.
- Various situations such as stadiums, arenas, concert halls, etc. can be handled.
- Flexible design of sheet styles and creation of original contest sheets
- Realistic reproduction of various actions such as horn action, turns, steps, etc.
- 3D movements, such as placing a performer on a 3D object, are also possible.
- Automatic calculation of counts and sheet numbers.
- Individual coordination sheets can be generated with a single click.
- Export to PDF files.
- Export videos in MOV or AVI or MP4 format.
- Upload to server for distribution to the DrillStudioViewer app version.
- Create your own costumes for a more realistic recreation of the marching band.
- Reproduce stage effects with lighting simulation.

## Drill Studio is constantly evolving

Since its release in 2013 as Japan's first full-scale drill design software, we have continued to make various improvements and evolutions.

With the cooperation of various orchestras, bands, and instructors in Japan and overseas, we have been able to quickly respond to the evolving needs of the marching scene. We are committed to providing support that is close to the user and responds quickly to the voices of the people in the evolving field of marching.

We use SNS to quickly respond to and improve even the most trivial questions and concerns.

## 2 Installation and Setup

### Downloading and Installing Drill Studio

Drill Studio can be downloaded from the following sites



App Store

By downloading and purchasing the application from the App Store provided by Apple, it is available for Ipad and MacOS.



Google Play

Download and purchase the app from Google Play, provided by Google, for use on tablets and laptops with Android.



Desktop

Download directly from the Drill Studio website.  
Mac users can also download the app from the Mac App Store.

Download is free, but plan subscription is required to use all features.

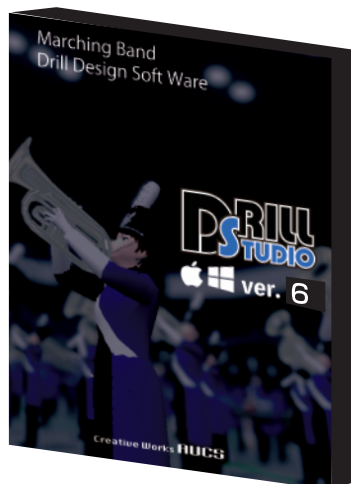
1. monthly plan . . . . . This is a monthly contract that renews monthly(auto-renewal) and can be cancelled and re-subscribed in one-month increments.
2. Yearly Plan . . . . . This plan is a yearly contract with annual renewal.  
1 year renewal is required.
3. Package Plan . . . . . Available as a CD-ROM package and includes 3 years of support.  
(Desktop only)

Please follow the instructions from the store where you downloaded the software to sign up and make payment.

You can create a Drill Studio Account for any store to use the software on two devices.

### About the Package Plan

If you purchase a package plan, you will receive the following products.



Application CD



The package plan includes full support for three years from the date of purchase. After the fourth year, you may continue using supported versions, but older versions may become unusable due to OS or device changes. If the support period has expired, we cannot provide assistance, so regular renewal is recommended. Drill Studio is continuously updated for improvement. During the contract period, the latest updates can be downloaded via the internet, even with the package version. Paid update CD-ROMs are also available upon request.

## Installing Drill Studio (Windows)

Double-click the icon in the downloaded file or CD-ROM to open it.

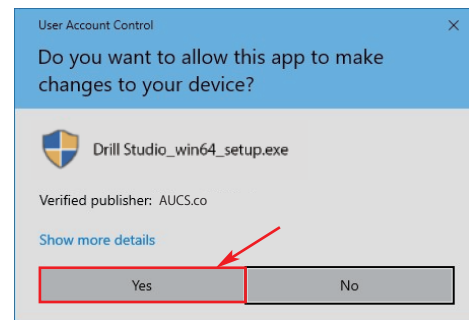


The CD-ROM also contains files for MacOS, so be sure to click on this icon.

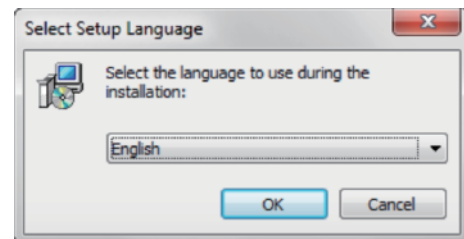
Note: The .exe extension may not be displayed depending on your environment settings. File names may vary by version.

The following is the install screen on Windows 7.  
For other OS versions, there may be some differences in the screen displayed, but the operation is basically the same.

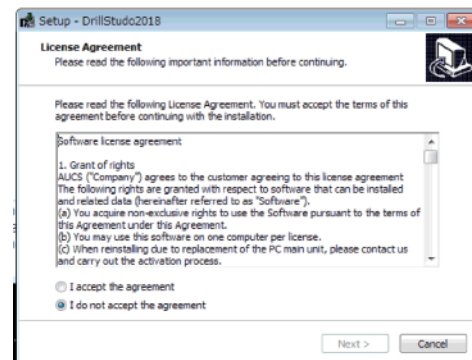
A window similar to the one on the right will appear.  
Press [Yes] to proceed.



The next window that opens is the setup language settings.  
This is the language that will be displayed during setup and has nothing to do with the language of the software itself. Press "OK" to continue.



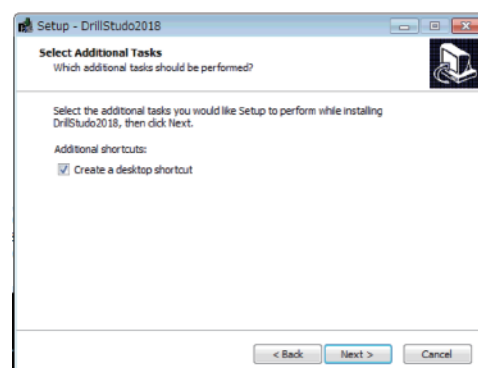
If you agree to the terms of the license agreement, check the "I accept..." checkbox and proceed to "Next".



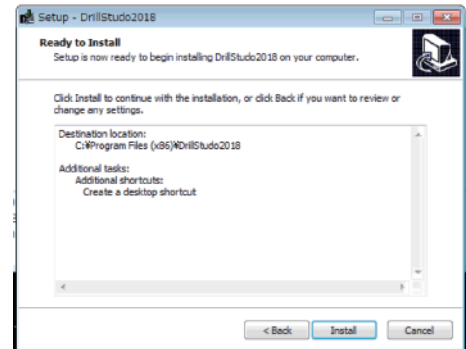
Next, you will be asked to create an icon on your desktop. [Please make sure that the "Create an icon on the desktop" checkbox is checked, and then proceed to [ Next ].

Drill Studio does not allow you to double-click on a saved file to open it.

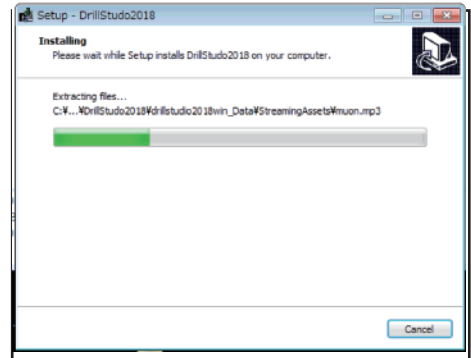
Since they must always be opened from the application, please create a shortcut on your desktop unless you have a special reason to do so.



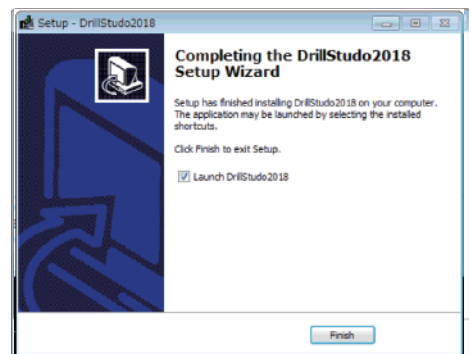
When the installation is ready, press "Install" to proceed.



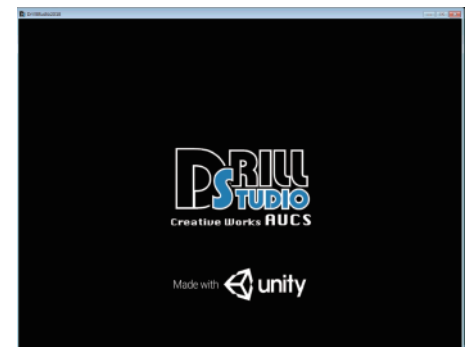
The installation will be done automatically.  
Please wait until the process is completed.



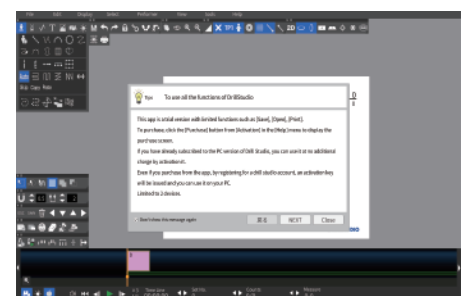
When the installation is successfully completed,  
you will see the screen on the right.  
Click [ Finish ] and Drill Studio will start automatically.



A splash screen similar to the one on the left will appear.  
If it takes some time to start up If it takes a long time to start up,  
the screen will go dark for a while.  
If it takes a while to start up, the screen will go dark for a moment, but please wait a moment for it to start up.  
When the tools and sheets appear on the screen,  
the installation and Installation and startup are successful.



Upon startup, a hint screen will appear.  
The hints will guide you through the information you need to know about using Drill Studio and useful features.



## Installing Drill Studio (MacOS version)

Double-click the icon in the downloaded file or CD-ROM to open it.



The CD-ROM also contains a file for Windows, so be sure to click on this icon.

Note: Depending on your preferences, the .exe extension may not be displayed. File names may vary by version.

DrillStudio\_MacOS/dmg

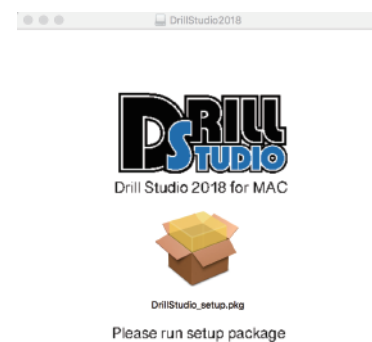
The following is the install screen on OSX High Sierra 10.13.

For other OS versions, there may be some differences in the displayed screen, but the operation is basically the same.

Double-click the icon to mount the disk on the desktop.

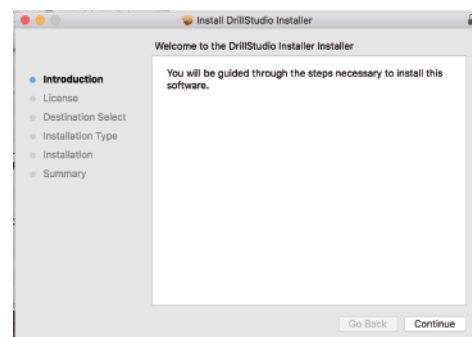
The disk is mounted on the desktop and the contents of the disk are displayed.

Double-click the displayed package file to execute it.

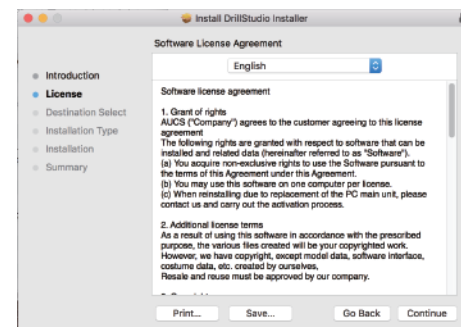


Setup will be executed.

Follow the instructions to complete the setup.



If you agree to the terms of the license agreement, click "Continue" to accept the agreement and proceed to the next step.



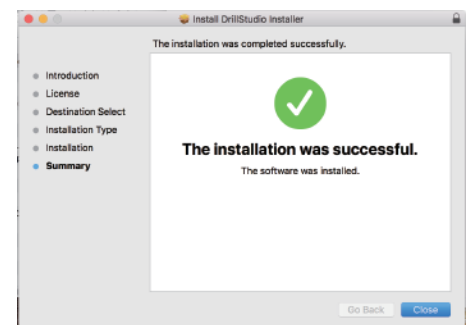
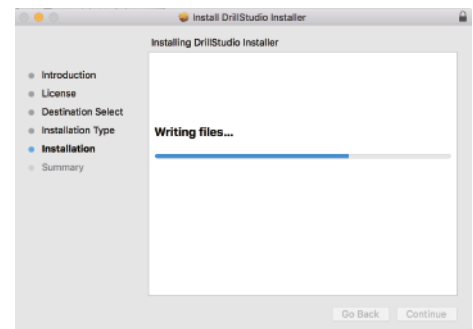
After proceeding with the other settings, you will be asked for a password to authorize installation. The password is your Mac personal password.





If the password is entered correctly, it will be installed automatically.  
Please wait until the process is completed.

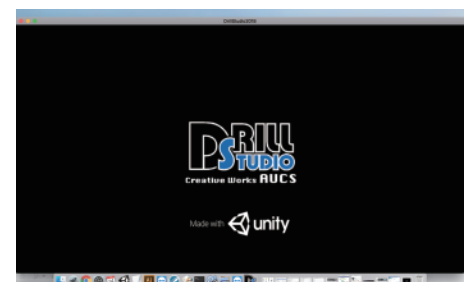
When the installation is successfully completed, you will see the screen on the right.  
Click [ Close ] to automatically launch Drill Studio.



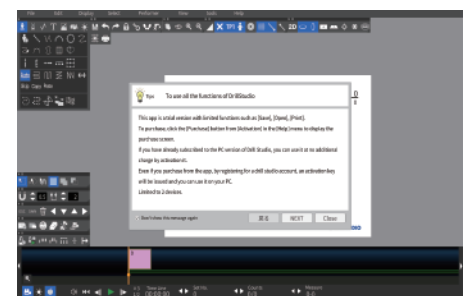
The Mac version does not automatically start the software when the installation is complete.  
An application with the icon on the right will be installed in the Applications folder.  
Double-click to launch the application.  
If necessary, create an alias on the desktop or in the dock.



A splash screen similar to the one on the left will appear.  
If it takes a long time to start, the screen will once go dark, but please wait a moment until it starts.  
When the tool and sheet appear on the screen, the installation and startup have been successful.



Upon startup, a hint screen will appear.  
The hints will guide you through the information you need to know about using Drill Studio and useful features.



### 3 Feature Unlimitation and Activation

#### Unlock features restricted by plan contracts

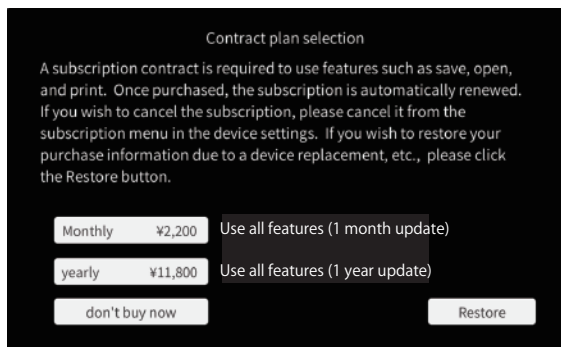
DrillStudio is free to download and install, but some features such as saving and video exporting are limited. To remove the restrictions and enable all features, a subscription to the respective plan is required. Two devices can be activated for any combination of Mac, Windows, iPad, Android tablet, etc., as long as they are used by the subscribed user himself/herself.

If you purchased from the App Store or Google Play, you can use it on the device on which you installed it by signing up for a subscription. If you want to use the software on another device, you can get an activation key by creating a Drill Studio Account on the official Drill Studio website.

Monthly and annual plans are subscription-based services. You can cancel or re-contract at any time, and you can continue to use the software for the term of the contract. Only the package plan allows you to continue using the software after the 3-year support contract expires. However, support will end when the contract is terminated, and free version upgrades will no longer be available. In addition, there is a possibility that the software may become unusable due to changes in OS specifications, etc., but this is not covered by support. The cancellation procedure for each plan differs depending on the store where you signed up for the plan, so please check the cancellation procedure of each store.

#### When paying via App Store or Google Play

When you select a restricted function (save, open, print, etc.), the following screen will appear.



After clicking the "Purchase" button, a payment confirmation screen will appear on each terminal. Follow the instructions to complete payment. Once payment is completed, all functions will be available. If you purchased the app from the app store, you can use it offline on the device on which you purchased it for the subscription period. If you want to use the software on a different device or operating system, please create a Drill Studio Account and obtain an activation key.

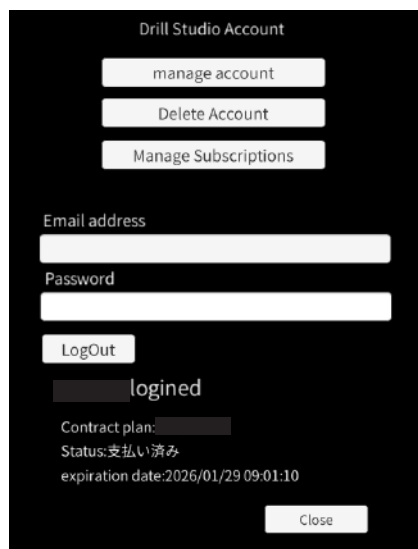
#### When paying via official Drill Studio website

You can also sign up for a subscription through the official Drill Studio website. After selecting a plan from the purchase page and completing payment, an activation key will be sent to you via email. Activation gives you access to all features, and the same activation key can be used to activate the software on two devices used by the same user.

#### Creating a Drill Studio Account

When purchasing Drill Studio from the official website, creating a Drill Studio account is required. The account is used to manage payment status and provide support services. If you purchase Drill Studio from an app store, creating a Drill Studio account is not mandatory. However, a Drill Studio account is required to use server-based services such as uploading to the DSM server. You can create an account on the official Drill Studio website or via [Help] > [Account Management] in the menu.

## アカウント管理



The Drill Studio account you create can be accessed from [Help] > [Account Setting] in the menu.

From this screen, you can manage your account, update registration details, or delete your account.

The same actions can also be performed from the account management page on the official Drill Studio website.

By logging in on this screen and syncing your app store payment status, you can share your purchase status across multiple devices. In addition, logging in here is required to use the DSM Uploader.

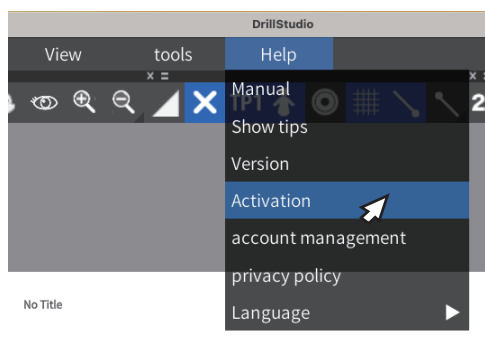
Drill Studio accounts are managed using Google Firebase.

This system prevents us from accessing your password information, ensuring secure use.

Your personal information is managed solely by our company and handled appropriately in accordance with our privacy policy.

For more details, please visit the official website.

## Activation



By logging in with your Drill Studio account, your contract status is applied and the corresponding features are activated.

If you purchase Drill Studio from the official website, you can also activate the software using an activation key.

Once the key has been issued, launch Drill Studio and select [Help] > [Activation].

Enter your registered email address and activation key, then click [Online Activate].

If activation is successful, the status at the bottom left of the screen will display "Activated."

After activation, please close Drill Studio and restart the application.

When all features become available, activation is complete.

Even if you purchase the package plan, issuing an activation key is required.

If online activation is not possible due to the lack of an internet connection, offline activation is available.

Offline activation is only available to users who have purchased the package plan.

For devices purchased via the App Store or Google Play, all features are available immediately after purchase, and no activation is required.

## Offline use

When features are unlocked using an activation key, there are limitations on offline use.

You can launch the application offline up to five consecutive times.

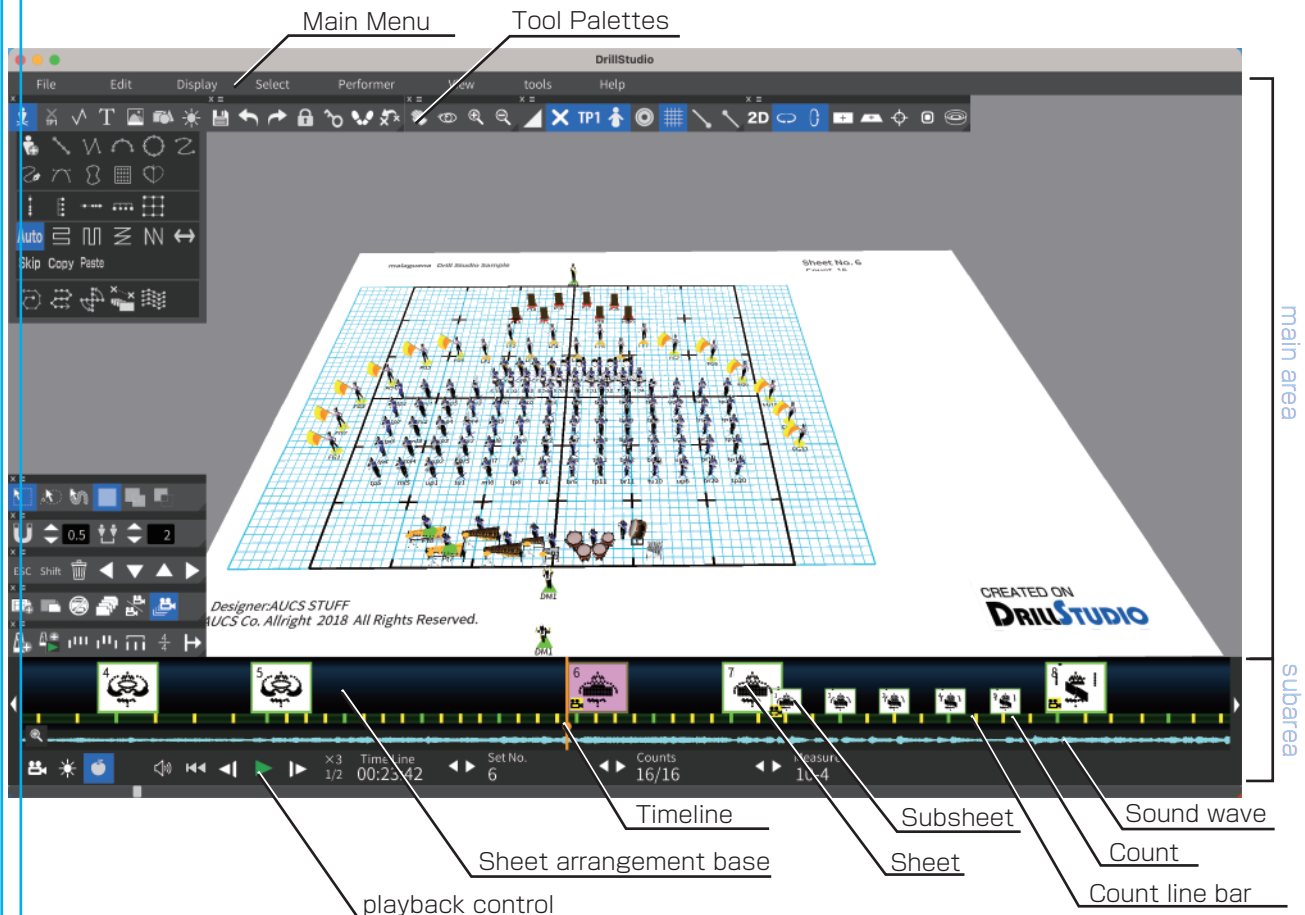
If it is launched six or more times in a row while offline, the application will become temporarily unavailable.

Once the application is launched in an online environment and re-authentication is completed, the consecutive offline launch count is reset, allowing offline use again.

There are no restrictions on offline use for devices purchased under the package plan or via the App Store or Google Play.

## 4 Screen Structure and basic usage

### Screen Structure and Names



### Main Flow of Drill Design

- ① Create a new drill
- ② Add performers
- ③ Load a sound source (if you have one)
- ④ Create a count
- ⑤ Design the formation for sheet #0
- ⑥ Add a sheet
- ⑦ Design the formation for the added sheet
- ⑧ Repeat steps ⑥ and ⑦ to complete all performers' movements
- ⑨ Set up the halt step, horn actions, etc.,
- ⑩ Adjust label positions so that they do not overlap
- ⑪ Insert annotations, images, graphics, etc.,
- ⑫ Print out the Container Sheet and the Coordination Sheet
- ⑬ Export video and share it with members on video sites, etc.
- ⑭ Upload to DSM server and share with smartphone apps

## 5 Types and Roles of the Tool Palette

It is designed so that most tasks can be performed with the tool buttons.

Tools can be moved freely by dragging the black area at the top.

Customize the placement of a tool to make it easier to use, and the tool's position will be recreated the next time you open it.

Click the × symbol to close the tool. You can control the visibility of the buttons in the Tools menu of the main menu.

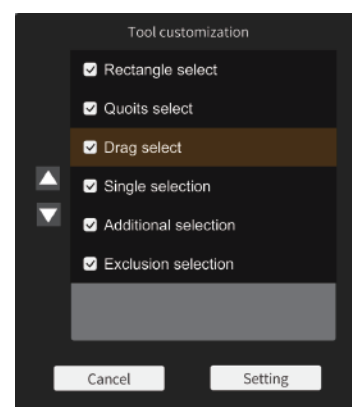
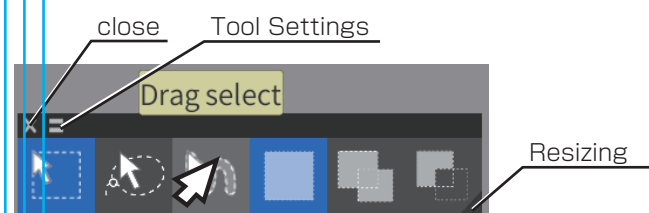
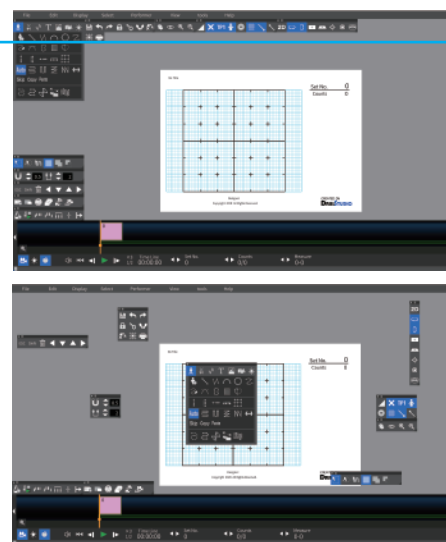
If the tool is out of range and cannot be touched, or if you want to return the tool to its initial state, you can use [Tools] ► [Reset Tool Position] to reset the tool to its initial state.

Pressing the [TAB] key will temporarily erase the entire display.

If you hold the cursor over any of the buttons, a hint will appear.

Click on the tool settings to set the tools to be displayed in that tool palette and the order in which they are displayed.

In addition to the tools that are initially displayed, some tools are hidden. Drag the resize button in the lower right corner to change the size of the tools.



Hold the cursor over each button and wait a moment for a hint to appear.

You can hide a tool by pressing the small X button in the upper left corner.

Hidden tools can be redisplayed from the Tools menu in the Main Menu.

Click on the tool settings to set the tools and the order in which they are displayed in the tool palette.

Some tools are hidden in addition to the ones initially displayed.

You can change the size of the tools by dragging the resize button in the lower right corner.

### Mode Tools



This tool allows you to select the following modes: Performer Placement, Label Placement, Line Drawing, Insert Text, Insert Image, Create Object, and Lighting.

The tool corresponding to the currently selected mode is displayed at the bottom, and only the parts corresponding to the mode can be selected and edited.

### Select tools



There are three selection methods: rectangular selection, lasso selection, and drag selection, and three selection styles: select, add, and exclude.

### Edit tools



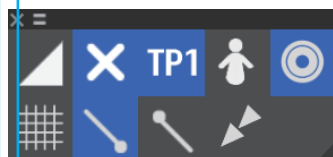
It includes save, print, redo, undo, lock, unlock, return to previous sheet position, point check, hold, and more. The tool set includes tools for saving, printing, redoing, undoing, locking, unlocking, reverting to the previous sheet position, point check, hold, and collision check. Some tools are hidden by default.

### Magnify tools



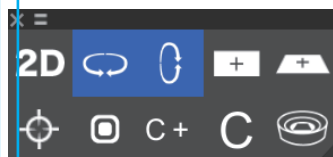
This is a set of tools that allows you to control the camera to change the view of the screen, such as zooming in, zooming out, and moving the camera.

## Object Display Tools



Tools to allows you to change the display and hiding of black and white views, marks, labels, models, area guides, grids, previous point, next point, and forward arrows.

## Camera Angle tools



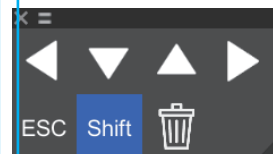
This tools to lets you control 2D mode, fixed vertical rotation, fixed horizontal rotation, top view, box view, camera target display, spot top, custom camera angles, and stage display.

## Snap tools



This tools for snap and interval settings.

## Keystroke tools



This tools that enable the same effects as keyboard input, such as arrow keys, shift keys, etc.

## Sheet edit tools



This tools for sheet-related settings, such as inserting sheets, creating sub-sheets, printing sheets, and camera angles.

## Count edit tools



This tools allows for count-related settings such as count insertion, count input, count addition, count division, count equalization, and measure settings.

## Effects tools



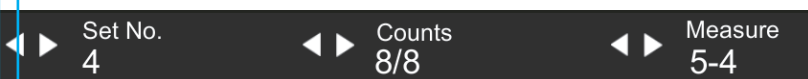
Effect effects such as camera action, lighting, shadows, physics, and volume can be controlled on/off to reduce processing load.

## Playback tools



This tool allows for playback-related controls such as playback, fast forwarding, and double-speed playback.

## Status Tools

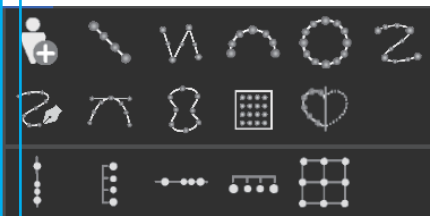


Information about the current timeline is displayed.

You can also use the arrows to move through the timeline by sheet, count, or measure.

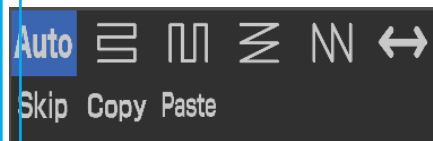


Performer Placement Tools



Tools are available to automatically select various patterns, such as auto-ordering, switching the order of selections, and skipping one person.

Select Order Tools



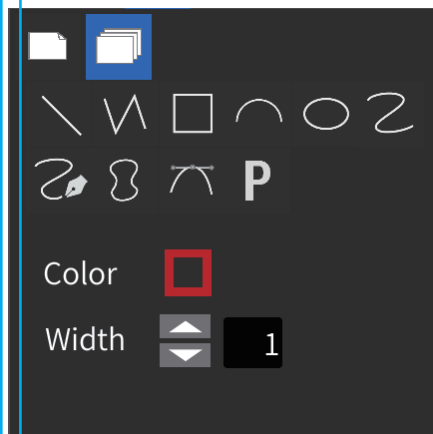
Tools for controlling selection order. Tools are available to automatically perform various types of selections, such as auto-ordering, switching the order of selections, and skipping one selection.

Special Move Tools



This tools allows you to set up special movements such as follow-the-leader and pinfields.

D-Line Tools



Text Tools

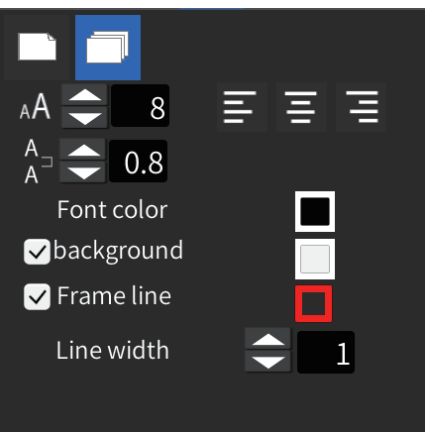
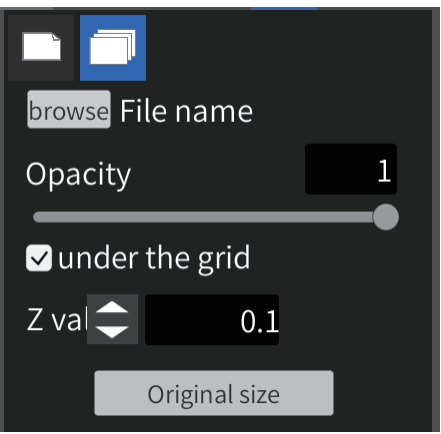
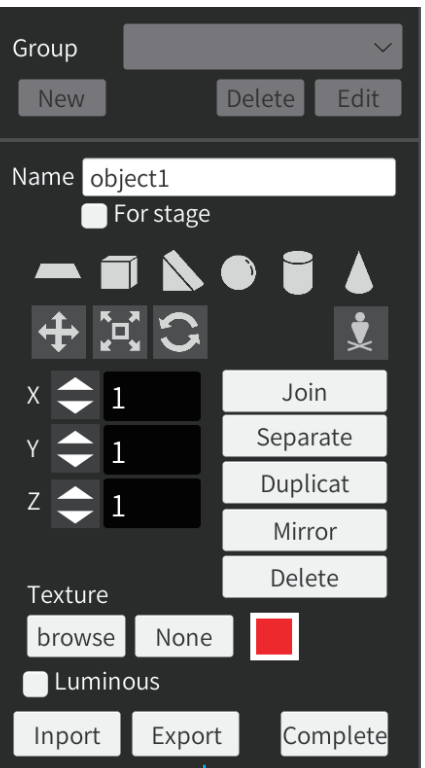


Image Tool

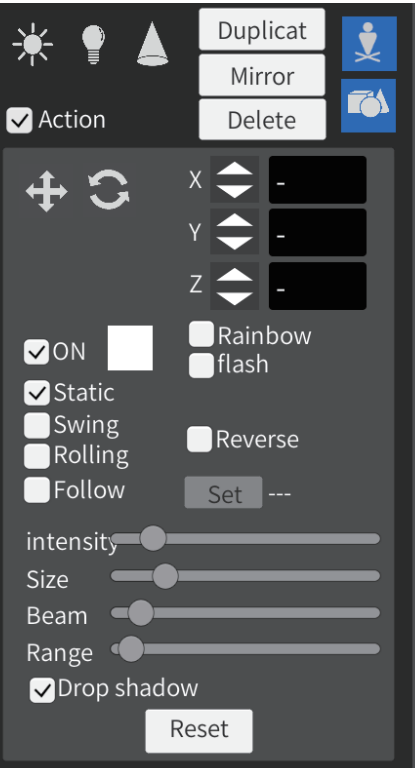


These tools are displayed in each mode. For detailed information on how to use the tools, please refer to the description of each mode.

Object Tools



Lighting Tools



## 6 New Drill and Adding Performers

### Create a new drill

Select [File] ► [New Drill] to initialize the sheet.

Selecting a new drill will initialize all information and leave it empty.

If any items are currently being edited, a confirmation to save will be displayed.

### Add Performer



or Select [File] ► [Add Performer] to set the Performer.

Set the number of performers per part.

A marching band formation and a preschool marching formation are provided.

Performers can be added or deleted later, but if you have created many sheets, you will need to consider the placement of the added Performers on all sheets if you add them later, so set the correct number of Performers as much as possible at the beginning.

Instruments can be changed during the process.

Performers cannot be added in the middle of a performance.

You must set up the Performers from the beginning and place them outside of the field.

The number of Performers is not the total number of Performers, but the number of Performers to be added to the current Performers.

The additional Performers will appear in the lower left corner of the field, aligned by part.

Depending on the format of the sheet, some parts may appear outside the sheet, so zoom out to see the Performers created.

Note that if there are already Performers in that location, they will appear on top of each other.



### color setting

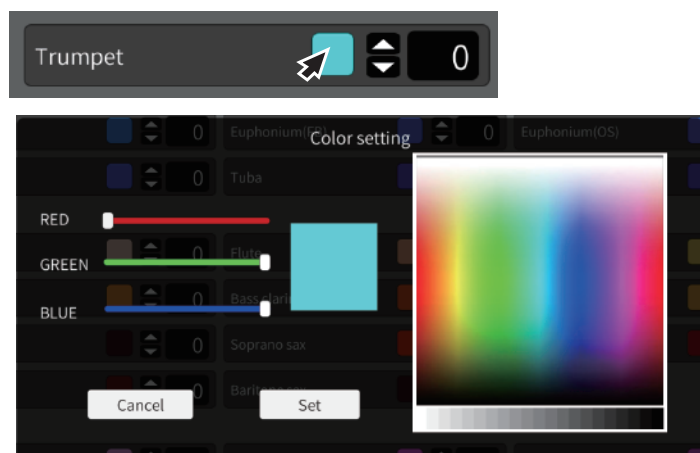
The colored square represents the color of the mark.

Clicking on this square will bring up the color setting screen, where the color can be changed.

The mark color can also be changed later.

The color setting palette appears in various color setting scenarios.

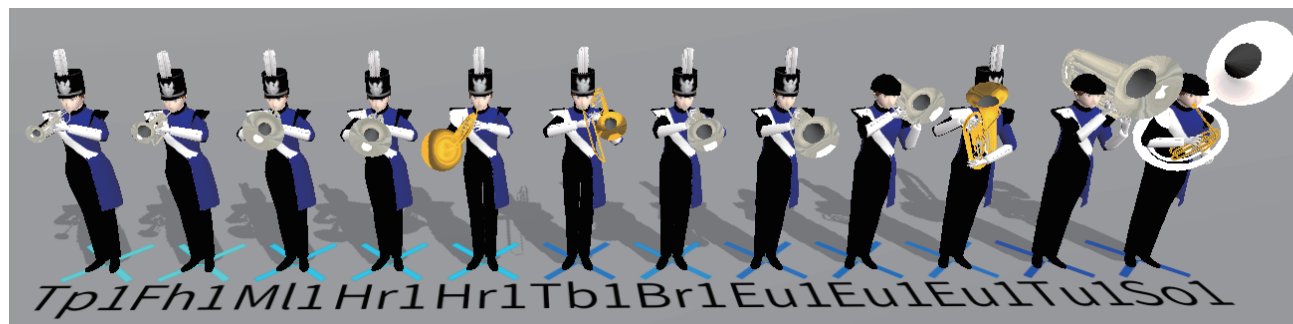
Color changes are in RGB format and can be obtained by clicking on the rainbow palette on the right.



## List of instruments that can be set

### Brass

Trumpet / Flugelhorn / Melophone / French Horn (FB) / French Horn / Trombone / Baritone / Euphonium (FB) / Euphonium (SU) / Euphonium / Tuba / Sousaphone



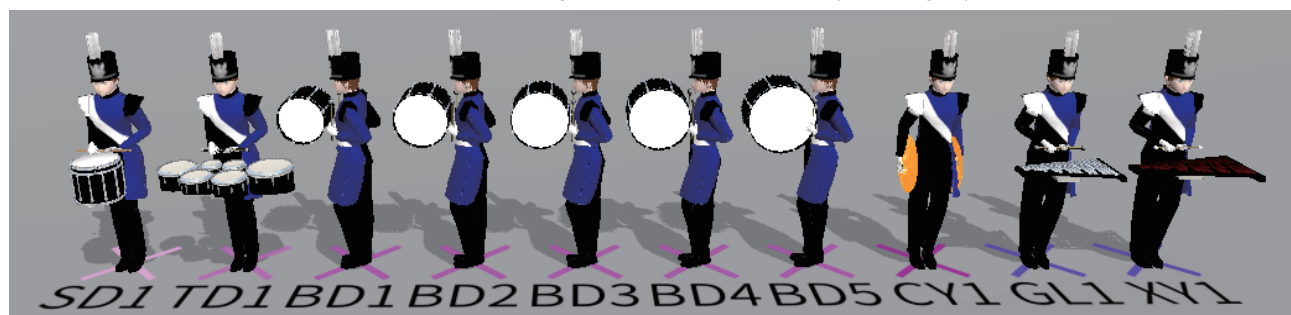
### Winds

Piccolo / Flute / E $\flat$  Clarinet / B $\flat$  Clarinet / Bass Clarinet / Oboe / Bassoon / Soprano Sax / Alto Sax / Tenor Sax / Baritone Sax



### Battery Percussion

Snare Drum / Tenor Drum / Bass Drum / Cymbal Line / Glockenspiel / Syrophone



※When 10 or more bass drums are set, all bass drums after No. 10 will be the same size.

### Color Guard

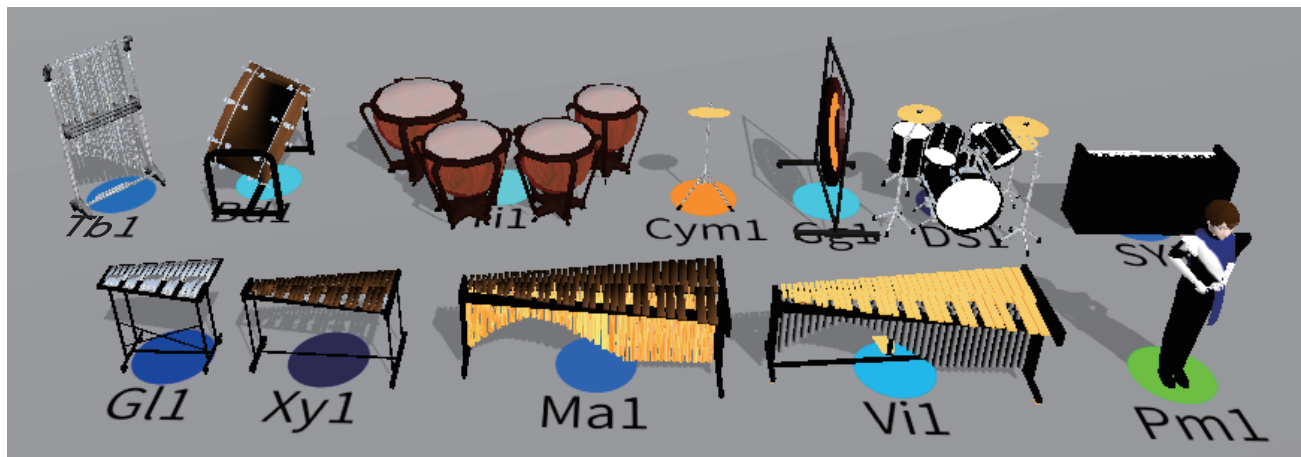
Flag  
Big Flag  
Swing Flag  
Rifle  
Saber  
Dancer



※It is possible to change hand tools in the middle of a drill.

## Pit Percussion

Glockenspiel / Syrophony / Marimba / Vibraphone / Tubular Bells / Bass Drum / Timpani /  
Stand Cymbal / Chau gong / Drum Set / Keyboard / Pit Player



※The pit percussion is an instrument only model.  
Place and use a pit player on each instrument as needed.  
You can also move the instrument by itself.

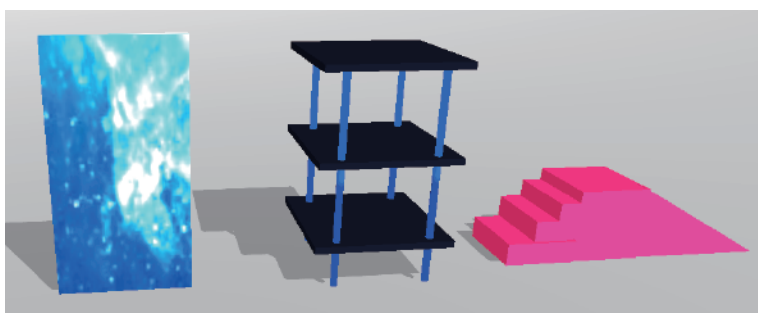
## Other

Prop  
Drum Measure (baton)  
Sub Measure (baton)  
Drum Measure  
Sub Measure



## About Props

The prop is displayed as shown above.  
This is just a temporary object.  
You can create props of various shapes  
with the object creation tools and attach  
them to create props of complex shapes.



For details, see [Creating a project object P60].

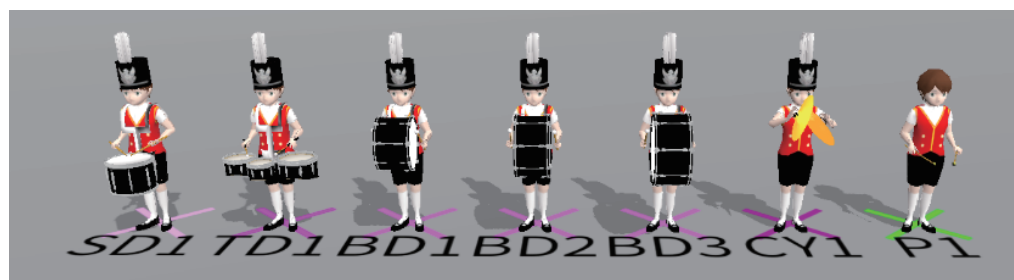
## melody instrument

Keyboard Harmonica  
Recorder  
Electronic Sax  
Keybord  
Glockenspiel  
Xylophone  
Bellrila



## Drums

SnareDrum  
Trio Tam  
Bass Drum  
Cymbal  
Player



※ The pit percussion uses the same musical instrument as for adults.  
You can position the player and adjust the height of the Z, or you can create a platform and stand it on top of it to simulate a performance.

## Color Guard

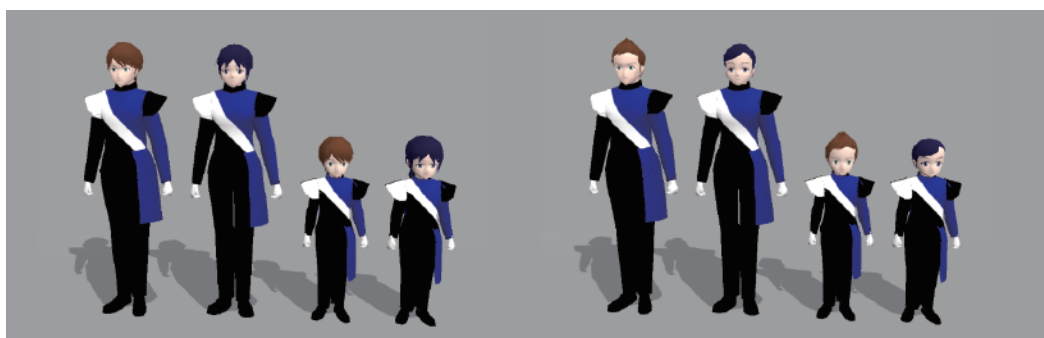
Flag  
Pompon  
Dancer  
Drum Measure  
Sub Measure



※ It is possible to change hands during the storyboard.

## Types of Performer Models

Male  
Female  
Boy  
Girl



You can customize the model to give a different impression by changing the model's hairstyle and costume.

## 8 File Open/Save & Import Sound

### Save / Save As



or [File] ► [Save] and open the saved dsm file.

The saved file is Drill Studio Motion File (.dsm).

This includes the music data you are using.

The dsm file is the original file for DrillStudio.

It is not interchangeable with other dsm-format files.

You are free to distribute the resulting dsm files, but be aware of the copyrights to use and distribute the data, including music files.

### Open File

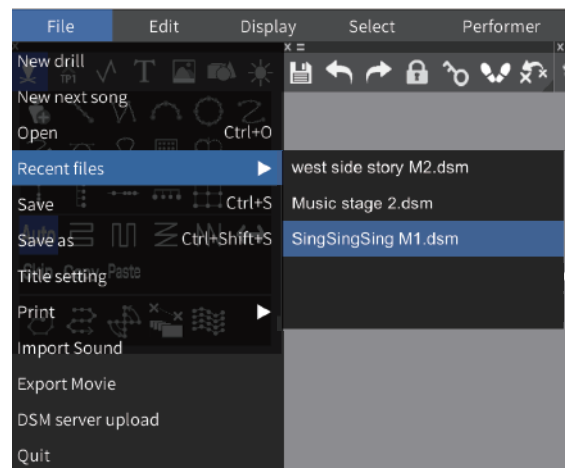
Choose [File] ► [Open] and open the saved dsm file.

Double-clicking on a saved dsm file will not open it. Even if the file is associated with a file, it cannot be opened due to system reasons.

Please make sure to start Drill Studio and select "Open" from the File menu to open the file.

The system remembers a history of up to 5 recently used files.

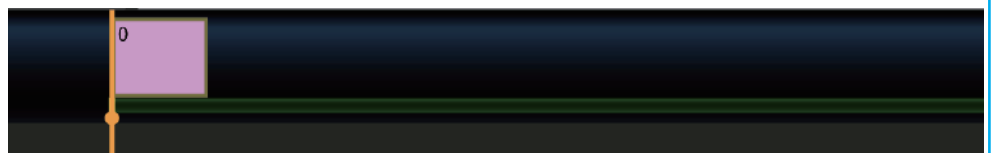
You can open frequently used files by simply selecting them.



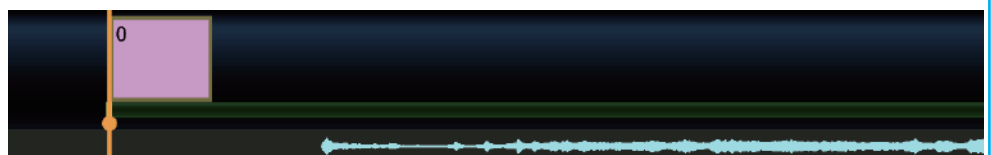
### Import Sound

Select [File] ► [Sound Load] and set the instrument. (When using a sound source)

Initial state  
(20 minutes of silence)



When sound source is set



In Drill Studio, music can be loaded and perfectly synchronized with the movement.

The length of the conte is proportional to the length of the sound.

Conversely, it is designed so that conte cannot be written longer than the length of the sound.

However, if you do not have a sound source or do not need to synchronize with music, a 20-minute silent sound source is loaded as a default setting so that you can proceed with your work as-is.

Only WAV or MP3 formats can be loaded.

For other formats, please change the format (encode) before importing.



## 8 Creating and Editing Counts

### Entering counts

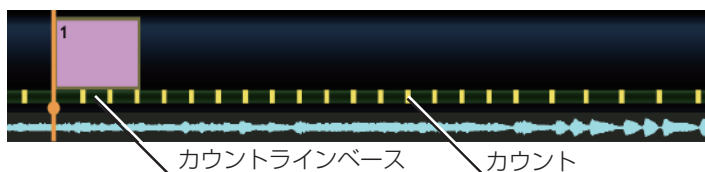
Creating a count is mandatory.

Since a sheet is created for the created count, a sheet cannot be created without a count.

Even if there is no sound source and no specific tempo, create a count with any tempo.

Use the Count Tool to create and edit counts.

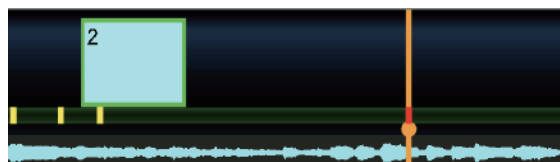
#### Count Tools



#### Create Count



Creates a single count at a timeline location.



#### Counts typing

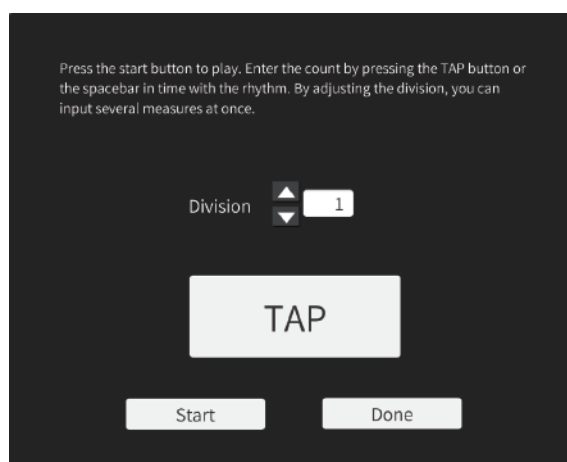


Press this button to display the figure on the right.

Click the [Start] button to play music and start the typing line moving.

Press the space key on the keyboard or the [TAP] button to enter the counts according to the tempo.

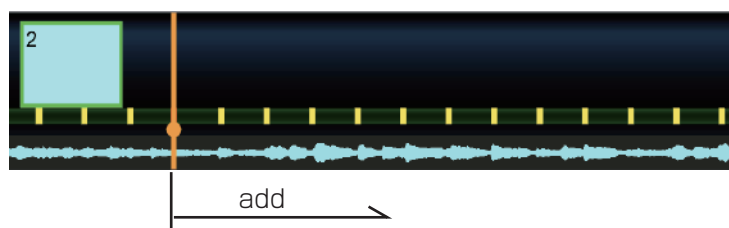
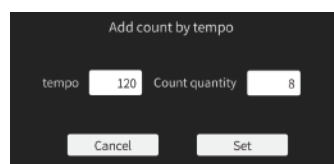
If you increase the number of divisions, you can enter multiple counts at once with a single tap per measure.



#### Adds Count



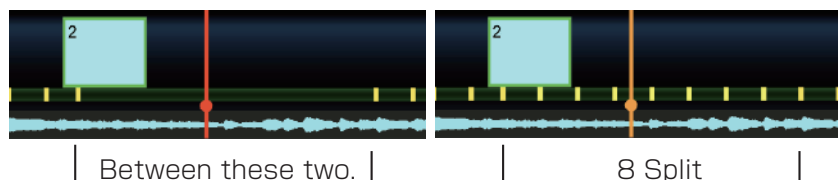
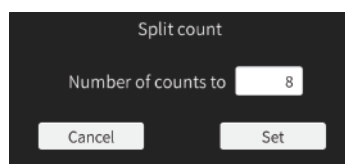
Adds a count after the last count currently present, specifying a tempo.



#### Count Split



Splits the counts before and after a certain location in the timeline by a specified number.

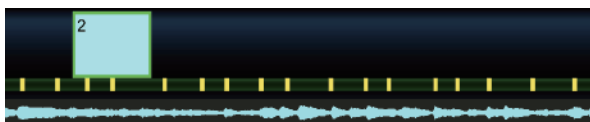


## Count Equalization

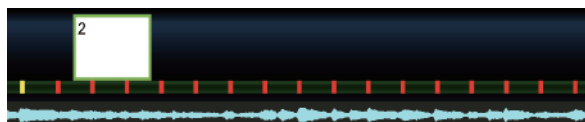


The variable count is redistributed evenly using real-time input.

Varied count entered in real time



balanced count



## Measure Setting



This tool allows you to set measures in detail, enabling features such as automatic measure calculation.

Click the count at the start of a measure to align the timeline, then click this button and enter the time signature and number of measures.

Measures are set sequentially from the beginning of the song.

Set a larger number of measures, then reapply the settings at counts where the time signature changes.

By repeating this process, measures are generated automatically, and the first beat is shown in green.

To make changes, reapply the settings from the point you want to modify onward.

You can also specify which foot to start with at that count.

If [Not specified] is selected, the foot is determined by the preceding flow.



## Automatic Count Generation



This feature uses AI to automatically detect and generate counts.

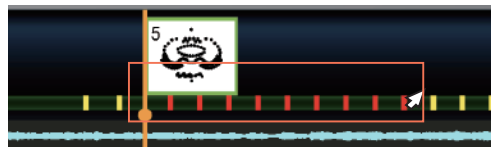
It runs automatically when a sound file is loaded, and you can click this button to regenerate the counts.

In most cases, the default settings are sufficient. For slow-tempo songs, lowering Max BPM helps prevent the tempo from being detected at twice the actual speed.

Setting a pickup (anacrusis) or time signature can improve accuracy, but songs with complex tempo changes or irregular time signatures may require fine adjustments after generation.

The audio data is temporarily uploaded to the server for analysis and is deleted immediately afterward.

Counts can be moved or deleted individually. Multiple selections can also be made.



Selected counts can be moved by dragging. When the mouse cursor is in the sheet subarea, press ←→ on the keyboard to move and fine-tune the counts.

By dragging from the [ Sheet Placement Space ] starting point, you can enclose them in a square and select them all together.

You can also hold down the [Shift] key while clicking to make multiple selections.

Right-clicking on a count displays the edit menu.

## Right-Click menu for count

- **Create a sheet here**

Creates a new sheet for the count you click.  
For details, see "Creating and Editing Sheets P 24".

- **Delete selected counts.**

Deletes the selected count (Red count).  
You can also delete them by pressing the Delete key.

- **Measures Set**



the same function as.

- **Even arrangement Count**



the same function as.

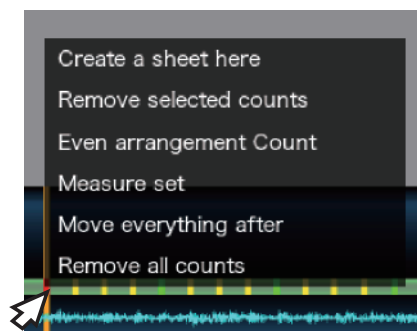
- **Move everything after**



the same function as. However, the selection count is the starting point.

- **Remove all counts**

Deletes all counts, including those that are not selected.



## Right-Click menu on the counter line bar

The countline bar is the dark green base area where the counts are located.

Right-click here to display the menu.

- **Insert count here**

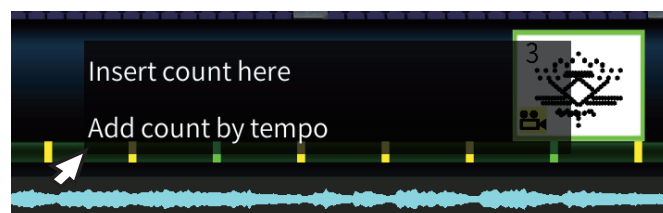


the same function as,  
However, it adds one count to the location  
where you right-click, not to the timeline  
location.

- **Add Count By Tempo**



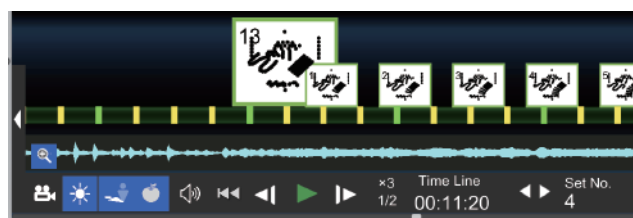
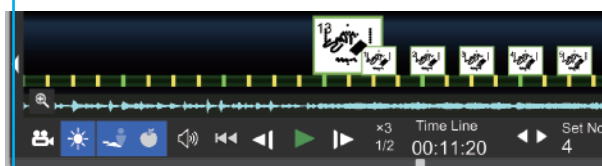
the same function as,  
However, creates a specified number of  
counts at a specified interval from where  
you right-click,  
not after the last count.



## Enlarged view of subarea

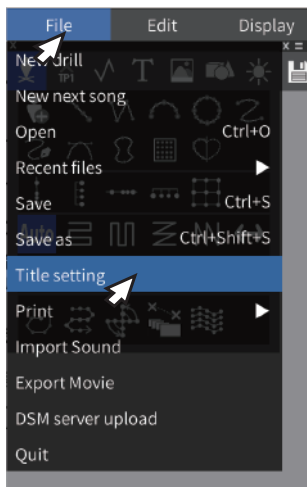


To facilitate detailed work in editing counts and sheets, you can click on the magnifying glass button in the lower left corner to enlarge the subarea.



## 9 Title settings

### Set the title or subtitle of the show

A screenshot of the 'Title setting' dialog box. It has a dark background with white text and input fields. The fields are labeled 'Title', 'Subtitle', 'Designer', and 'Copyright notice'. The 'Title' field contains 'malaguena', 'Subtitle' contains 'Drill Studio Sample1', 'Designer' contains 'AUCS STUFF', and 'Copyright notice' contains 'AUCS Co. Allright 2018 All Rights Reserved.'. At the bottom, there are 'Cancel' and 'O K' buttons.

To set the title, select [File] > [Title Settings].

You can set the title, subtitle, designer, and copyright information.

The information you set here is displayed on the sheet according to the sheet format.

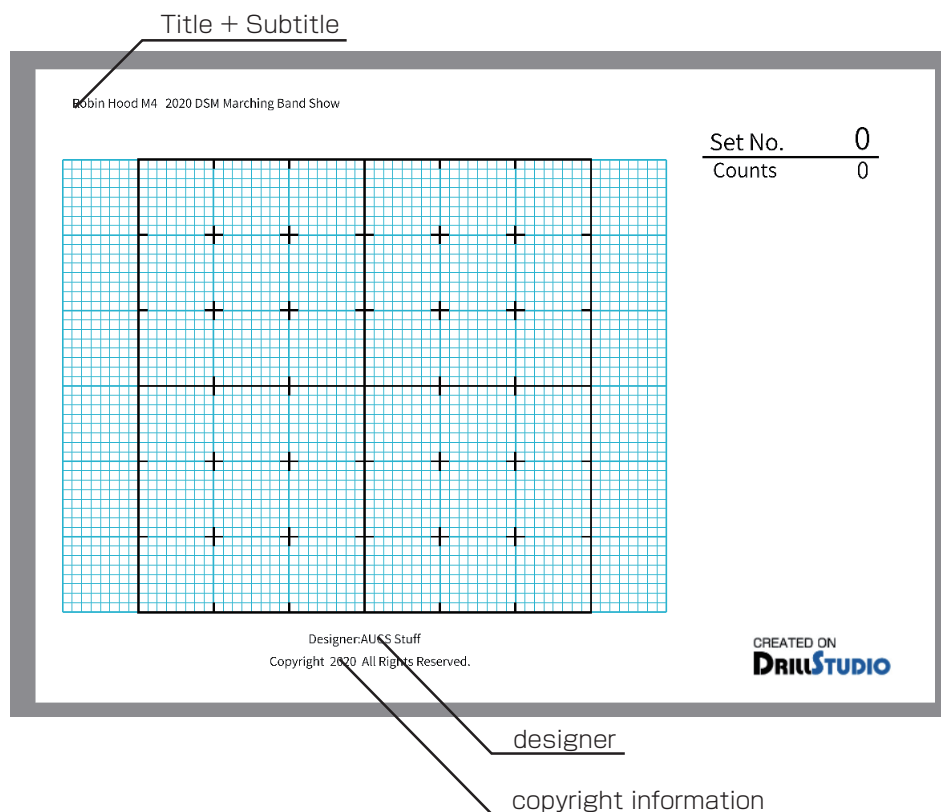
They also have tags assigned to them so they can be displayed anywhere on the sheet.

Title [/ t] Subtitle [/ st] Designer [/ d] Copyright [/ c]

For information on inserting text and entering tags, see [Insert text P48].

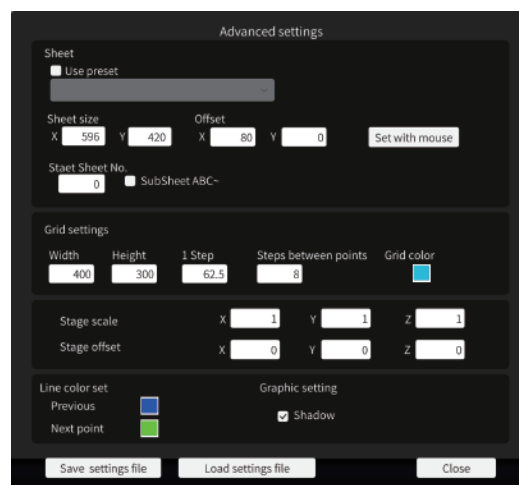
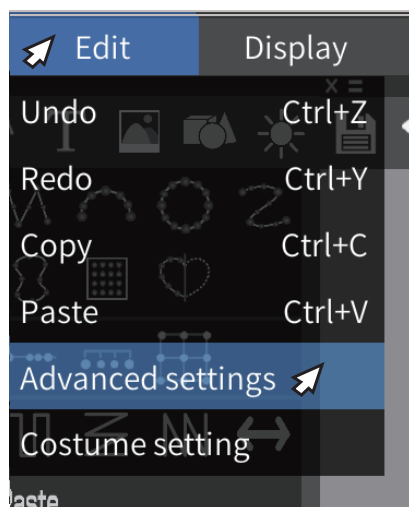
### Display position in the initial format

The display position and design differ depending on the format used.



## 10 Changing the Sheet Design (Advanced settings)

### Change the Sheet Design



You can design your sheets from [Edit] > [Advanced settings].

You can select one of several predefined formats by checking [Use Standard Format] and selecting a format. also free to create formats.

You can change the sheet size, grid settings,

and save your own format designs, such as with the Line tool.

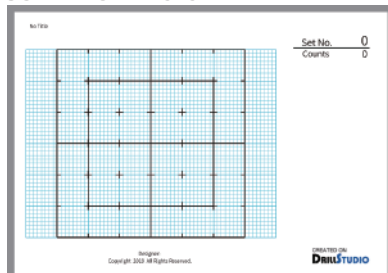
Saved dset files can be opened from this preference.

The configuration file also stores information such as text position and stage type.

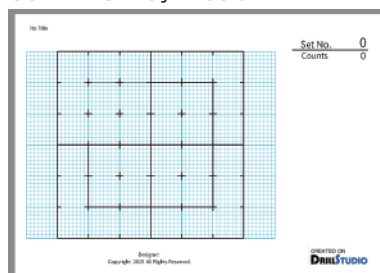
It is convenient to save the original design you often use.

### Standard format

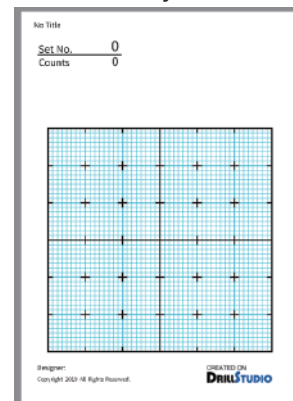
30m x 40m Arena



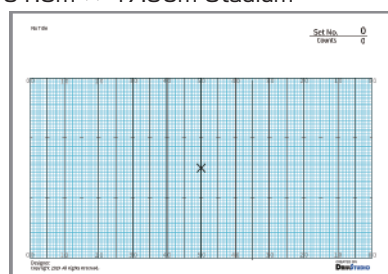
30m x 40m Gymnasium



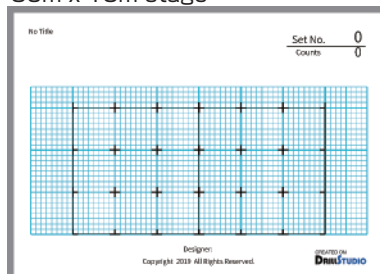
24m x 24m Gymnasium



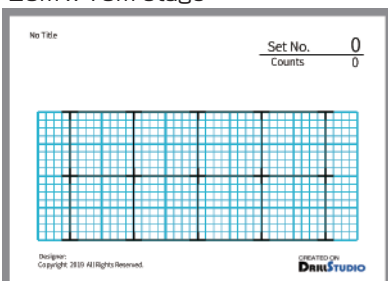
91.3m x 47.96m Stadium



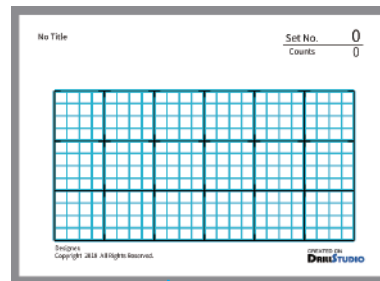
30m x 15m stage



20m x 10m stage



15m x 7.5m stage




## How to make an original sheet

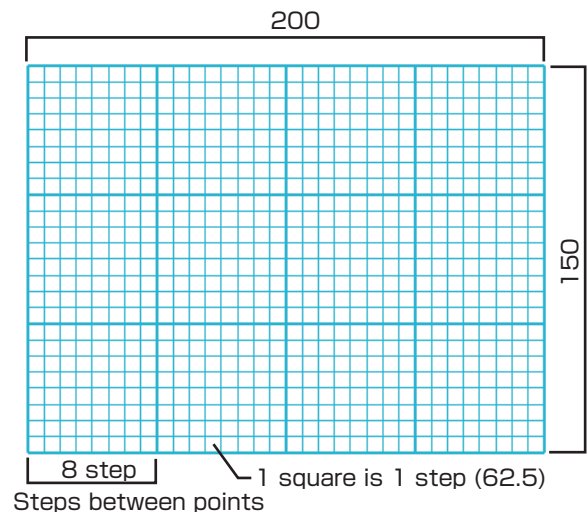
When you create an original sheet, you modify the currently displayed sheet to create it.  
Select the closest standard format for ease of use.

### ① Change the grid.

You create a grid by setting the stride, the distance to the marker, and the distance of the entire field.  
For example, suppose you have a field that is 20 meters wide by 15 meters high, with width 200 and height 150.  
For 1 stride, enter a standard distance of 1 step.  
62.5 (cm) for Japan and 57.15(cm) for the United States.  
Steps between points specifies how often the thick lines of the grid are created.  
This is usually 8 (steps) or 4 (steps).

Grid settings

Width	Height	1 Step	Steps between points	Grid color
200	150	62.5	8	



Please note that the setting unit is different, such as 1 cm or 10 cm.  
The grid is just a part of grid paper, so you draw actual markers with the line tool.

### ② Adjust the paper size in the sheet settings.

Click the [Set with mouse] button.

The screen will look like the one on the left, so select the paper size and hold down the [Shift] key while adjusting the bounding box to zoom in and out and adjust the paper size.  
The grid does not move, so move the paper and the grid is ideal.  
tab page, select the background colour.

Sheet

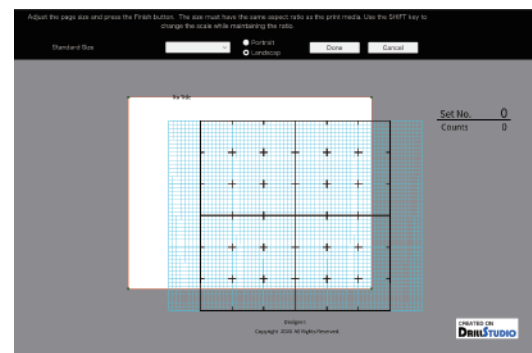
☐ Use standard format

Sheet size

X	Y	X	Y
596	420	80	0

Offset

Set with mouse

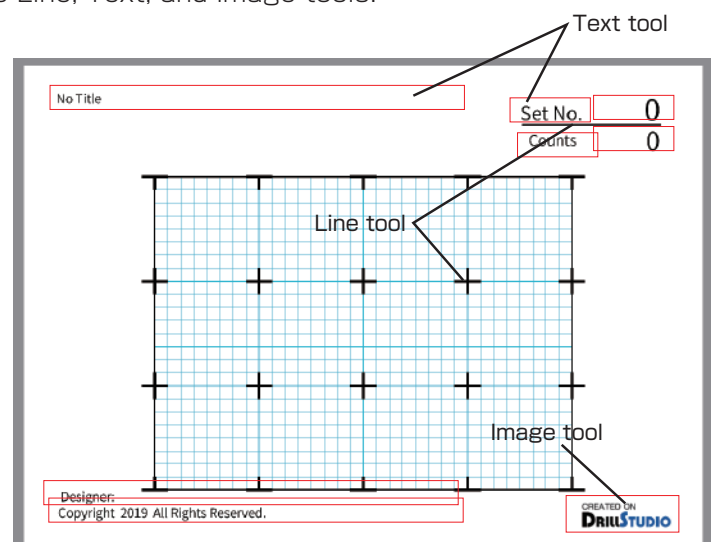


Using a different size than the standard paper ratio may cause unexpected results when printing.

### ③ Exit the preferences and modify them with the Line, Text, and Image tools.

Use the Line tool to draw marker lines, stage borders, and other lines to align with the grid.  
Use the Text tool to move existing text, delete existing text, or add new text.  
The sheet format is the same for all pages, so use tags to make the calculation automatic.  
Use the picture tools to modify and add pictures as needed.

See [Insert Text, Shape or Image P51]  
for how to use each tool.



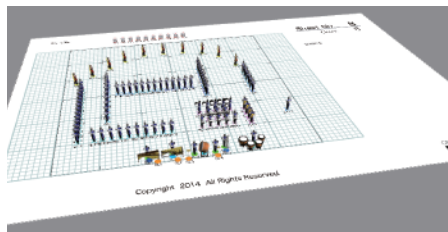


## 11 Stage settings and changing

### Switch to Stage mode

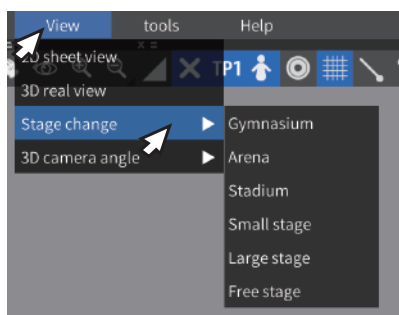


Stage tool



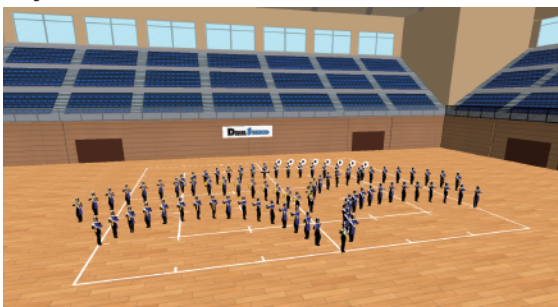
You can switch between sheet and stage views with the Stage tool.  
You can set different text, images, and shapes for Stage mode and Sheet mode.  
Only those created in Sheet mode are reflected in the plot.

### Change the type of stage



You can change the stage from [View] > [Stage Change].  
You can also change the scale and position of the Stage from within [Preferences].  
You can add objects to the Stage.  
Concert hall walls, for example, are created with objects that you can modify or delete to change the composition of the Stage.  
You can also create your own stages by adding objects to the Free Stage.

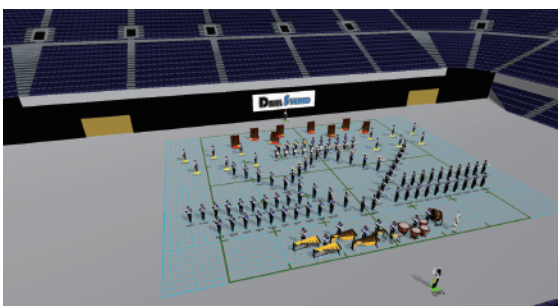
Gymnasium



Stage Small



Arena



Stage Large



Stadium



Free Stage



## 12 Creating and editing Sheets

### Add a new sheet

Use the sheet editing tools to create and edit sheets.



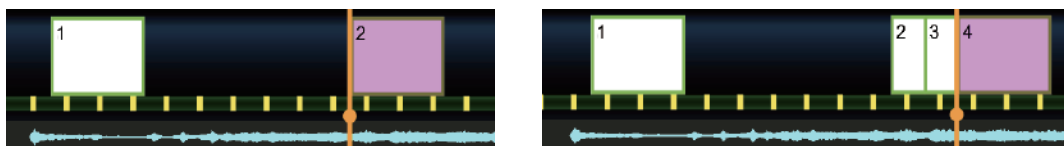
Sheet tools

### Create Sheet



Create a sheet at the location of the timeline (Current Count).

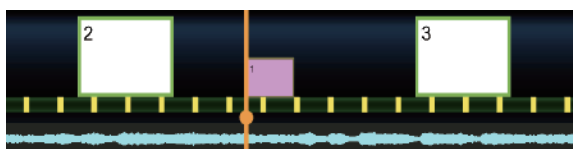
If a sheet already exists at that location, it is created at the next count.



### Subsheet



Makes the selected sheet a subsheet (or main sheet).

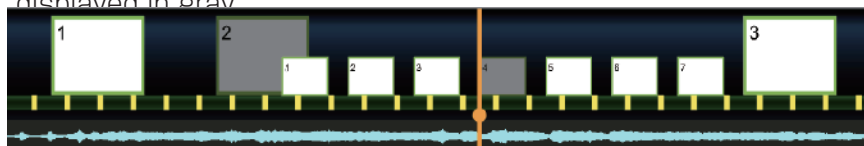


### Print Lock



Prevents the selected sheet from printing.

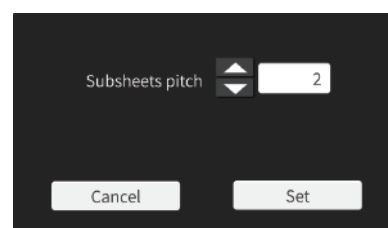
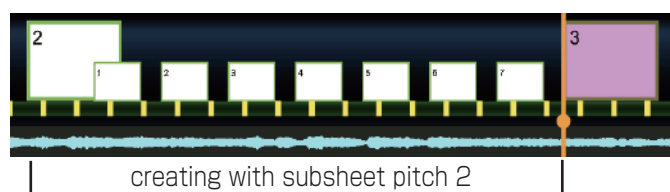
It is possible to set not to print a subsheet, but when this button is pressed, the sheet will not be printed regardless of the main subsheet. Sheets with this setting are displayed in gray.



### Insert Subsheet



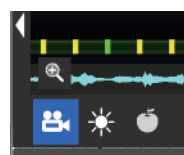
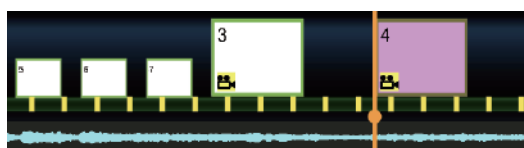
Creates subsheets at specified intervals from the previous main sheet to the next main sheet in the current timeline location.



### Switching/Moving camera



Sets the current camera angle as the switching/moving camera for the selected sheet. A sheet with a camera is marked with a camera mark.

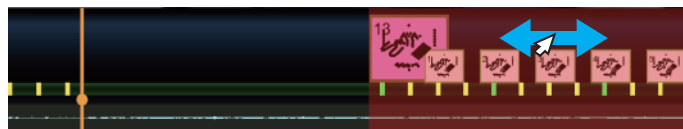
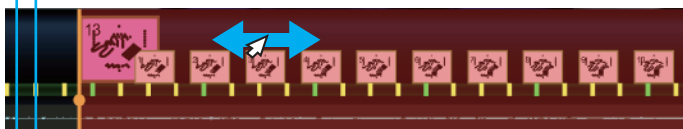


Only when the Camera button in the Playback tool is on. The set camera work is reproduced.

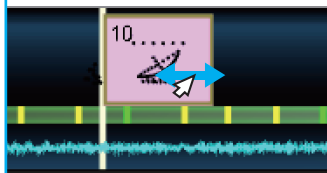
## 分割移動



現在のタイムラインの位置より後ろのすべてのシート、カウントをまとめて移動させる事ができます。  
曲が変更になり小節が増えたり、カットされた場合に便利な機能です。  
赤くなった部分をドラックして移動させることができます。  
移動を終了するには、赤くなった部分を右クリックするか、もう一度ツールボタンをクリックします。



## Adding and Editing Sheets



Created sheets can be moved by dragging them.

When a sheet is moved, the count numbers and sheet numbers are automatically recalculated.

Sheets are created between the selected count and the preceding count.

This is because the timing when the head position aligns with the point (the off-beat) is used as the reference.

As with counts, you can drag from the [Sheet Placement Space] to select multiple sheets by drawing a selection box.

You can also select multiple sheets by clicking while holding the [Shift] key.

Sheets can only be moved between other sheets and cannot pass over adjacent sheets.

Sheets cannot be moved to positions without counts. However, if a count is deleted after a sheet is created, the sheet will remain.

If you move a sheet in this state, it may shift to an unexpected position, so be sure to recreate the counts before moving it.

## performer placement during sheet insertion

If you add a sheet to the end of the list,

the sheet is created

in the same group as the last sheet,

if you create a sheet in

the middle, the sheet is created in the group as of that count.



## Right-click a sheet to display the context menu

- to sub (MAIN) sheet



the same function.

- Remove Sheet

Remove the selected sheet.

- Add sub sheet



the same function.

- Camera set



the same function.

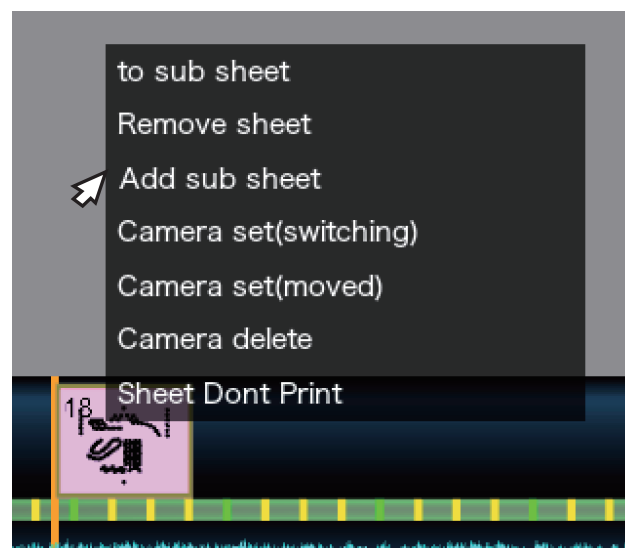
- Camera delete

Deletes the stored camerawork.

- Sheet Dont print

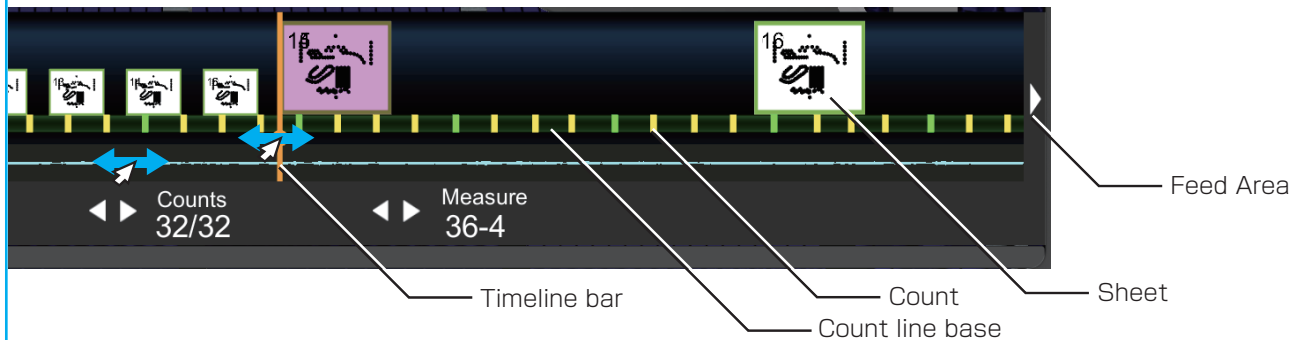


the same function.



## Working with the Timeline Bar

The timeline bar represents the current playback position.



- When no performer is selected, pressing the arrow keys (←→) moves the timeline bar.
- Pressing the arrow keys (↑↓) moves the timeline bar to the next sheet.
- Double-clicking the timeline bar moves the timeline bar to the new location.
- You can move the timeline bar by dragging it.
- When a sheet is clicked, the timeline bar moves to the position of the sheet.
- When you right-click on a count, the timeline bar moves to the position of the count.
- When you drag the audio waveform area, you can move the timeline quickly without moving the timeline.
- When the [ Feed Area ] is over the If the mouse is present, you can move backward and forward without moving the timeline.

## Basic Operations for Drilling

To edit a drill, first click the sheet you created.

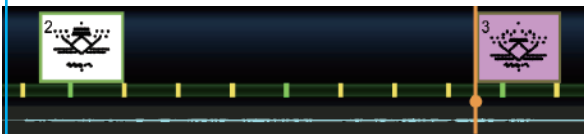
When you click the sheet, the timeline moves to the position of the sheet and the sheet turns pink.

Now, if you move the performer on the main screen, it will be reflected on the pink sheet.

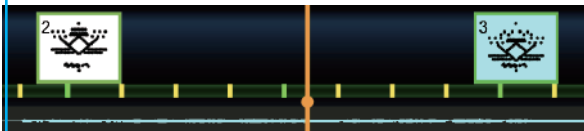
If the timeline is not in the location of the sheet, the current sheet is displayed in light blue to prevent unexpected edits.

You cannot select or move performers on the main screen.

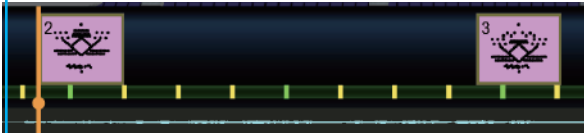
If multiple selections are made, the first selected sheet is edited.



Sheet 3 is edited.



The edit is locked and cannot be selected.



Sheet 2 is edited.

As you edit, the sheet in the timeline reflects the caravan situation.

It is designed so that you can see the atmosphere of the current formation at a glance.

Please note that unintended sheets may be edited if you do not always check which sheet you are editing.

## How to use the Select Tool

Select Tool



Since this tool is often switched, shortcuts are provided so that you can switch between them by pressing 1-6 on the keyboard.

[1] [2] [3] [4] [5] [6] Shortcut keys

### Three tools for performer selection

There are three types of selection tools. Use them according to your needs. When creating a conte, the order in which selections are made is important. Choose the tool you want to use by determining how to make the selection according to the situation, for example, whether the operation you want to use affects the order. Selection can also be made by clicking directly on the performer. Multiple additional selections can be made by holding down the [Shift] key while clicking. Right-clicking anywhere other than the Performer will deselect it.

#### Rectangle Selection



Drag to draw a rectangle and select all performers in the rectangle at once. The order in which the performers are selected is stored, but if they are selected at the same time, the order may be irregular. It is easy to use and convenient for simple actions such as moving and rotating.

#### Lasso Selection



You can drag a line and select the performers surrounded by that line. This is useful for selecting performers in arcs, circles, and other intricate shapes.

#### Drag Selection



You can select performers by dragging them as if you were tracing them with a brush. You can also click and release once, You can select additional performers in succession even after you release the click. This tool is specialized for sequential selection. It can also be used for transformational selections.

### Selection Effects

Specify one of three types of effects when selecting with the selection tool.

#### Normal Selection



Only what you specify with the selection tool will be selected. If you make a new selection, the previous selection is reset and only the newly selected items are selected.

#### Additional Selection



Each time you specify a selection with the selection tool, an additional selection is added. Use when selecting distant groups or when making complex selections.

#### Exclude Selection



Deselects what you specify with the selection tool. Use this when you want to deselect only a portion of the selected performers.

## Move, zoom, rotate performers

You can move a performer by dragging the selected performer.  
All selected performers move simultaneously.

You can rotate or magnify using the bounding box.  
A bounding box appears when you select the performer.  
Drag the ↻ at the corner to rotate, or drag ■ to scale change.

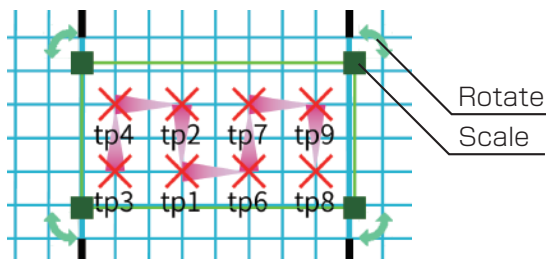
Rotating and enlarging, but the mark itself rotates and enlarges.

Instead, the performer's points are rotated and magnified relative to each other. Therefore, only one person is selected.

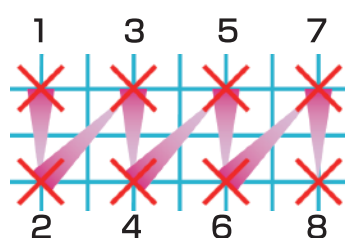
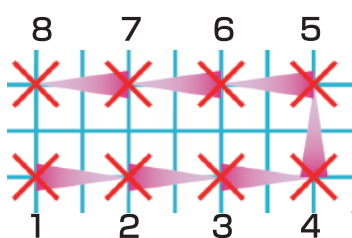
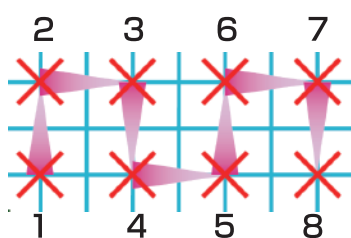
In, zooming and rotating are meaningless.

You can also use ← ↑ ↓ → on the keyboard to make detailed movements.

Pressing [Shift] while pressing allows you to move the cursor at an interval based on the snap setting.  
It is useful for tasks such as moving step by step.



## Be aware of performer selection order



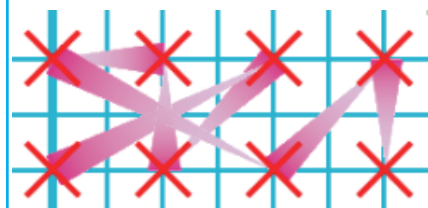
▷ It now appears to show the order you chose.

Depending on the order in which you select the same number of people, the results of using tools such as line alignment will change.

In the case of rectangle selection (Select by enclosing it in a box), if you select quickly, you cannot recognize the order of selection, and the selection is random.

As you make your selection, slowly cycle through the selections and use the [Shift] key to add the selected performer and cycle through the selections. You can also use the Drag Select tool to quickly order.

If the ▷ overlap as shown below, the order is not selected correctly.



Depending on your computer's specs and environment, there may be a time difference before your choices are reflected, and the results may not be in the order you want. There is a function called auto order to correct them automatically.



## Order Determination by Auto-Order



It is difficult to select many performers as you wish.  
This is a useful tool that does those things automatically.

### Auto Order



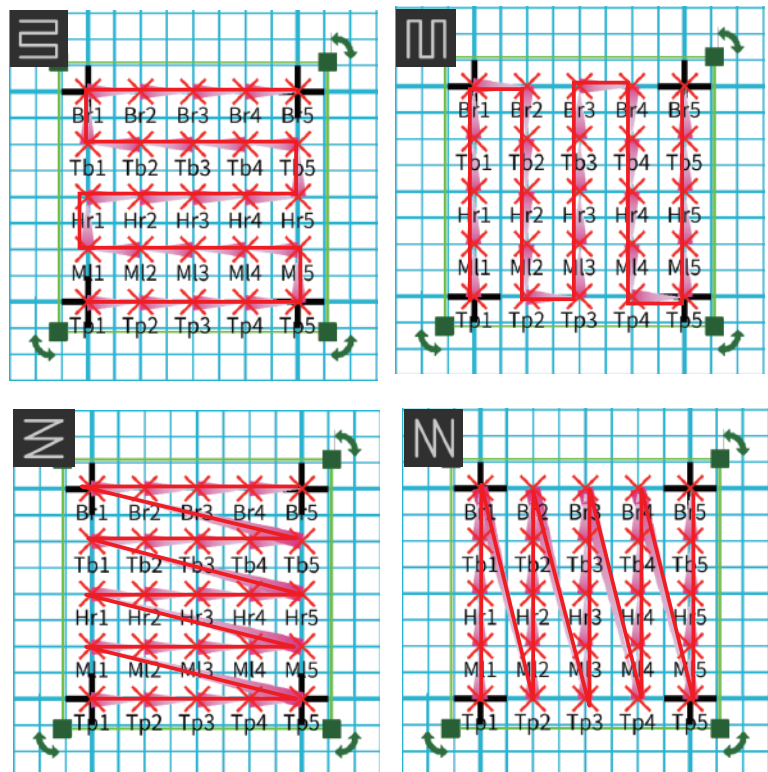
When the AUTO button is on, the first selected Performer is first, and the Performers in the nearest positions are automatically selected in order.

### Preset Order



The Preset Order tool is automatically selected like a clicked shape.

There are four preset buttons, and when each button is pressed, the status is as shown in the figure on the right. Each time the button is clicked, the order of selection changes, and 4 more patterns are included for each. A total of 32 patterns can be selected, including the reverse order in reverse. Diamond-shaped blocks and diagonal blocks are also supported. You can easily obtain the desired selection order by repeatedly clicking while changing buttons or by adjusting the selection order before clicking.



### Reverse



Press this button to reverse the order.  
(You can also use the space key to do the same thing.)



### Skip



Leave an entire column or row selected and click the Skip button.  
You can enter a group (how many people to select) and a skip (how many people to skip) to make a skipped selection.

### Copy and Paste



The current selection order can be memorized and restored later.

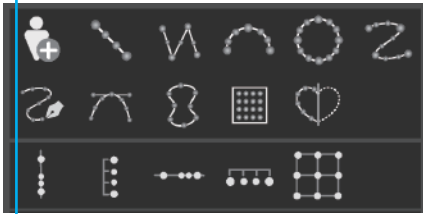


The memorized selection order persists until the next time Copy is pressed, and is overwritten when Copy is pressed again.



## 15 Performer Placement

## How to use the Performer Placement Tools



The Place Performer tool allows you to place performers on a line, circle, or other shape based on the selected order. The order can be reversed by pressing the space key. There is also a set of alignment tools. These tools require that the Performer be selected before use.

## Additional Performer



Performers can be added. Performers are added on all sheets.  
The Performer will appear in place. Note that if you are using a small sheet setup, such as a stage, the Performer will appear outside the column.

## Line Placement



The first click sets the starting point, the second click sets the end point, the line is drawn, and the selected performers are placed evenly on the line.

## Polyline Placement



Each click increases the number of points and places the Performer on the line connecting those points. Right-clicking determines the placement.

## Arc Placement



Draw an arc tangent to the first click point, the second click point, and the third click point to determine the arc. The selected performers will be placed evenly on the arc.

## Circle Placement



Click first to center the Performer, second to radius the Performer, and third to place the Performer at the desired angle and draw a circle. The selected Performers will be placed evenly on the circle.

## Curve Placement (Spline Curve)



Each click increases the number of points, and the performer is placed on a smooth curve connecting these points. the Performer is placed on a smooth curve connecting the points. Right-click to determine the position of the Performer.

## Freehand Placement



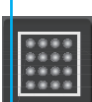
Drag to draw a freehand line and the Performer will be placed evenly on the line.  
Right-click to confirm. You can redraw as many times as you like until you right-click.

### Closed Curve Placement (Spline Curve)



Drag to draw a freehand line and the Performer will be placed evenly on the line.  
Right-click to confirm.  
You can redraw as many times as you like until you right-click.

## Box Placement

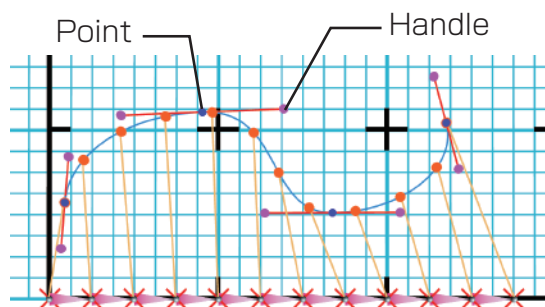


By dragging a rectangle, you can arrange the selected performers together in a box. There are certain rules for the order in which they are placed in the box, so please be aware of the selection order in advance to ensure that they are placed in the intended order.

## Bezier Curve Placement



Click and drag a point to draw a Bezier curve. Right-click to end the curve. You can also press **[control]+z** while drawing a curve to go back one point placement. Handles and points can also be selected and adjusted before the curve is determined by right-clicking. An even selection of performers will be placed. You can also turn on Interval to create a curve with a fixed interval.

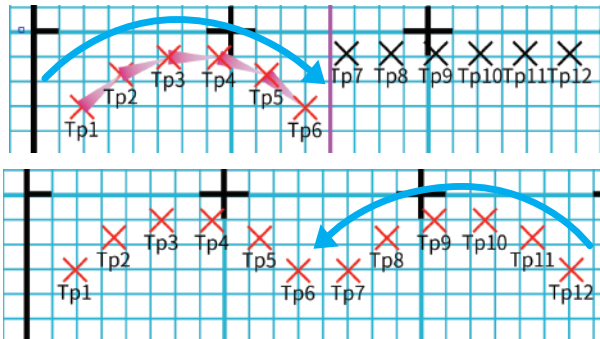


Bezier curves can be used to draw complex shapes beautifully and are extremely useful, but they are also difficult to master. They are used in a variety of graphics software, and there are websites and reference books available that explain how to draw Bezier curves in an easy-to-understand manner.

## Mirror Placement



In advance, create half of the shape and select the performers to be mirrored, taking into account their order. Select the Mirror tool, then select the performers you wish to move in order. The performers will be mirrored relative to the order in which they were selected in the beginning. The starting point of the mirror is the pink line that will be mirrored to the left and right. The pink line can be moved by dragging it. It cannot be mirrored up and down, so in that case, create the left and right lines and rotate them.



- ① Select the performers on the side where the shape is completed in order
- ② Click on the Mirror tool
- ③ Move to the pink line as a starting point
- ④ Click or drag to select the opposite performers in contrast to the order of selection
- ⑤ Select to the end and the tool will be released. To exit midway, right-click

## Interval Tool

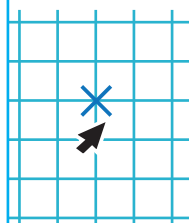


When this button is turned on, you can draw figures with a fixed interval. The ▲ and ▼ buttons set the interval to 0.5, but you can set even finer values by entering them directly. Since this is a frequently used function, you can toggle it on and off with **[I]** on the keyboard.

## Snap Tool



Turning on the magnet button causes the cursor to snap to the point. You can change the accuracy of the snap based on the value you set. With ▲ and ▼ it works at 0.5 intervals, but you can set it as fine as 0.25 by entering it directly. Snapping affects all drawing tools. If you want precise placement of lines, arcs, circles, etc., enable snapping. When snapping is turned on, an X will appear near the cursor. The location of this X is where you click. The snap spacing is always calculated from the center (0,0) point. If the grid is not set up correctly, there may be a discrepancy between the grid and the snap. This is a frequently used feature that can be toggled on and off with **[S]** on the keyboard.



## Alignment tools for precise placement

### Align vertically and horizontally



Aligns selected performers vertically or horizontally all at once.

### Equal vertical and horizontal alignment



Aligns the selected performers equally vertically and horizontally.

### Alignment Tool

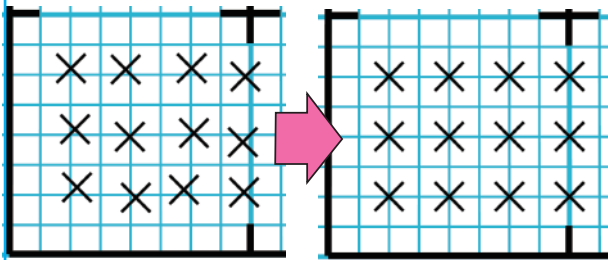


With the Align tool, you can align ambiguous points all at once.

Specify a value for the Snap tool and click the Align tool to snap and align to the specified point.

The points closest to the specified point will be snapped to and aligned.

Note that larger snap values may cause performers to overlap.



## Editing tools with a collection of useful functions



※Not displayed by default.

Some tools are not displayed by default.

## Overwrite Save



Click to overwrite and save.

Shortcut **Ctrl+[S]** or **⌘+[S]**

## 元に戻す／やり直す



Cancels the current operation and returns to the previous state. (undo)

Shortcut **Ctrl+[Z]** or **⌘+[Z]**



Redo an operation that has been undone. (Redo)

Shortcut **Ctrl+[Y]** or **⌘+[Y]**

## Lock / Unlock



Locks the selected Performer or object so that it cannot be edited.



Unlocks all performers and objects.

## Halt (in the Edit tool)



Moves the selected Performer to the position of the previous sheet and Holds. (no mark time) For more information on Halt (Hold), see [ March Style Settings, P41].

Shortcut **[H]**

## Reset to previous position



Moves the selected Performer to the previous sheet position.

Shortcut **Ctrl+[R]** or **⌘+[R]**

## Point Check



Checks for performers that are not on top of the value set by the snap (where the snap is active).

Clicking this tool selects the performers that are out of alignment and shows them at a glance.

## Print



Opens the print settings to print the drill sheet.

Shortcut **Ctrl+[P]** or **⌘+[P]**

## 17 Camera angle settings

### View and edit from various angles.

Camera control can be easily toggled using the Camera Angle tool.



Mouse operation in 3D view

- ① Rotate the mouse wheel to zoom the camera.
- ② Clicking and moving the mouse wheel moves the camera without changing the angle.
- ③ Drag the mouse to the right to rotate the camera around the viewpoint.

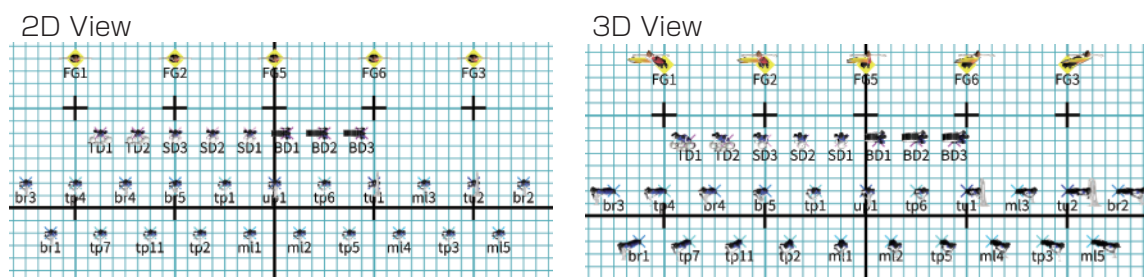
Controls with the Trackpad

The MacBook trackpad does not have a mouse wheel clicking action (middle click) assigned. You can perform the same action as 2 by holding down the [option] key and dragging, or by using the hand tool.

### 2D Fixed

**2D**

When the 2D button is pressed, the image is fixed in 2D and is displayed completely from above with no perspective.



The display changes between 2D and 3D, even at the same angle from directly above.

### Fixing Camera Rotation



When horizontal rotation is on, right-click and drag to rotate the camera horizontally.



When vertically rotation is on, right-click and drag to rotate the camera vertically.



When horizontal and vertically is on, right-click and drag to rotate the camera freely.

### Top Angle



Wherever the camera is located, it moves to an angle that looks directly over the entire sheet (entire stage).

### Box Angle



Moves the entire sheet (entire stage) to an angle viewed from above at an angle, no matter where the camera is located.

## Target

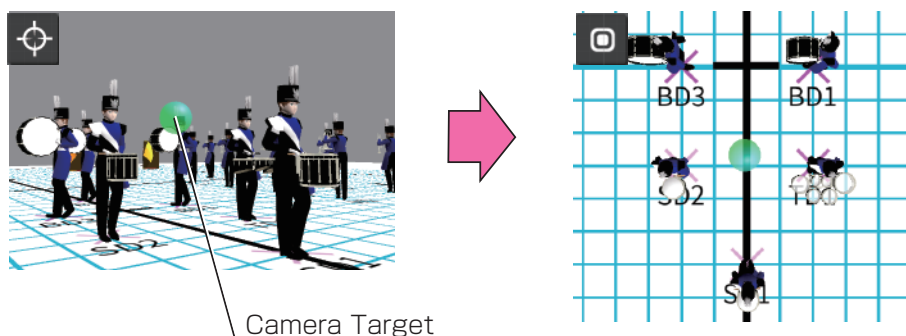


Displays the camera target. The camera is always aimed at the camera target. Click this button to display the current target position and help you navigate the camera. Even if it is displayed, it is not affected by printing, but it will appear on movies.

## Spot tool



Click this button to change the camera target to an angle from directly above. Use the Target button to view the current camera target position.



## Custom Angle



This button allows the current camera angle to be memorized. It is hidden by default.



This button allows you to set the camera angle to the stored camera angle. This button is hidden by default.

## Stage Display



You can switch between stage display and sheet display. For details, see [Setting and Changing Stages, P26].

## Zoom in or out

Use the Magnify tool to manipulate the screen at will.



## Hand Tool



By pressing this button and dragging the screen, you can move it parallel to the current angle without changing it. The same effect can be achieved by dragging while middle-clicking the mouse button (clicking the wheel) or holding down the [Alt] key in Windows or the [option] key on the Mac.

## Change Angle



By pressing this button and dragging the screen, you can change the angle around the camera target. The same effect can be obtained by right-clicking and dragging the mouse button, or by pressing [Alt]+[command] on Windows or [option]+[command] on Mac.

## Zoom in/out



Zoom in and out without changing the current angle. Moving the mouse wheel produces the same effect.

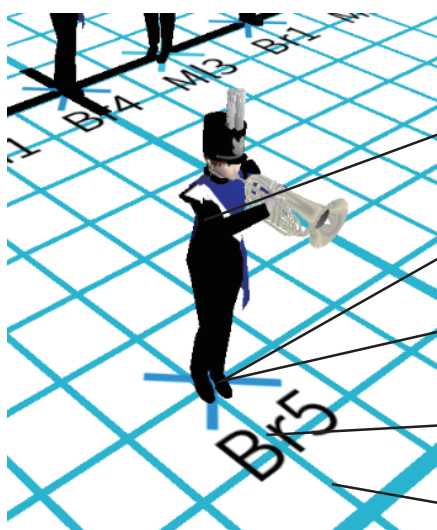
## 13 Display of Models and Marks

### Change to Show/Hide

Part Display Tool



It is a tool that I switch to often, shortcut keys are provided.



Various parts can be shown or hidden.



Show/Hide model  
Shortcut [M]



Show/Hide performer mark  
Shortcut [X]



Temporary performer mark in black  
Shortcut [B]



Show/Hide performer label  
Shortcut [L]



Show/Hide grid  
Shortcut [G]

### Show/Hide previous point



A line will be drawn between the point on the previous main sheet and the current position from that point.  
Showing or hiding the line is also reflected in the printed result.  
Shortcut [Q]

### Show/Hide next point

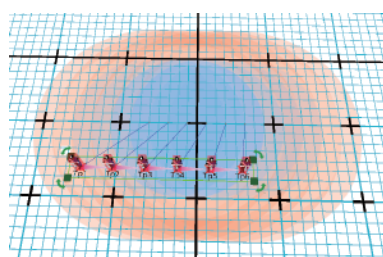
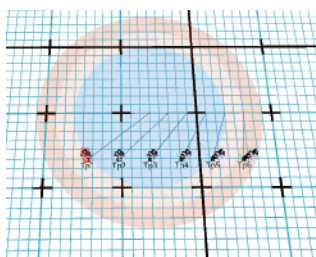


A line will be drawn connecting the point on the next main sheet to the current position. Showing or hiding the line is also reflected in the printed result.  
Shortcut [W]

### Show/Hide area guide



The area guide works in conjunction with the count to help you determine the approximate limits of your moving stride. A circle is displayed with a radius centered on the previous point that is the width of the count\*1 steps.  
Shortcut [E]



### Show/Hide selection order arrows

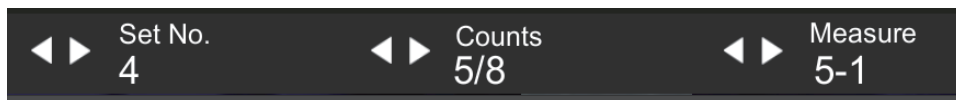


Toggles between showing and hiding the arrows that indicate the order of selection. By default, this tool is hidden.  
Shortcut [Y]



## 19 Play, Stop, and Fast Forward drills

### Status Tool



The status tool always displays the current set number, count, and measure information.

The sheet number and count are set automatically.

When a measure setting is made, the measure and beat counts are also calculated automatically.

You can also use ◀▶ to move the timeline by sets, counts, and measures.

In the above figure, the current set (sheet) is [No. 4], the count for this set is [8], and it is currently beat 5, [beat 1 of measure 5].

### Playback Tools



You can use this tool to control playback, rewinding, etc.

If playback does not work, please make sure that the sound source is set and saved in a supported format.

#### 各ボタンについて



Play the show.

Shortcut [SPACE]



You can head out.

Go to the head of the show or to the head-out point.



Rewinds the timeline.



Fast-forward the timeline.



When this button is pressed, playback is at 1/2 speed.

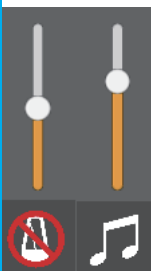


When this button is pressed, playback will be at 3x speed.

#### 音量の調整



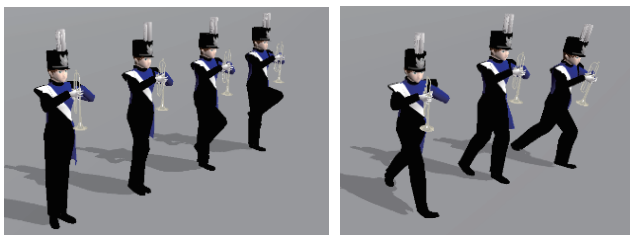
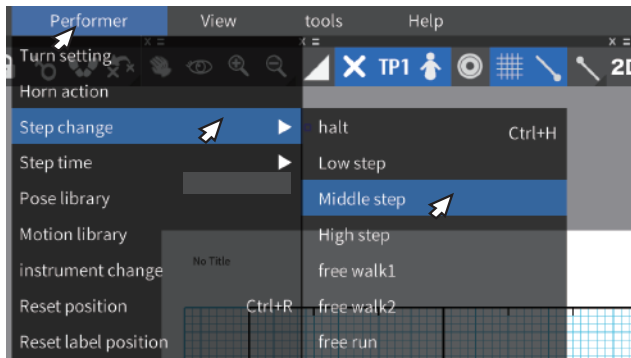
Clicking this button brings up the tools below to adjust the volume.



Clicking on the metronome toggles the click sound on/off, and clicking on the notes toggles the sound source on/off. You can adjust each volume with the slider.

## Step Change (Low, middle, high step, etc.)

Select a performer and use [performer] > [step change] to change the knee-raising height of the specified performer.



The default is to move in row steps.

Any changes you make here are reflected in the selected sheet. (Multiple Selectable)

Halt . . . . rest at previous point

Low Step . . Lift your foot up slightly to the ankles.

Middle step . . 'm going to raise my legs to my calves.

High Step . . lift your feet up to your knees.

The following will automatically point in the direction of travel.

FreeWalk 1 . . Walk regardless of tempo.

Free Walk 2 . . Walk fast regardless of tempo.

Free Run . . . . Dashes regardless of tempo.

## ホルト（ホールド）ツール



Select a Performer and click this button to halt the selected Performer.

Shortcut [H]



If the selected Performer has a halt designation, the color will be blue.

If the selected Performer has a mixed halt designation, the color will be green.

Clicking again while the color is blue or green removes the halt.

If a halt is specified, the toes open and remain stationary on the spot.

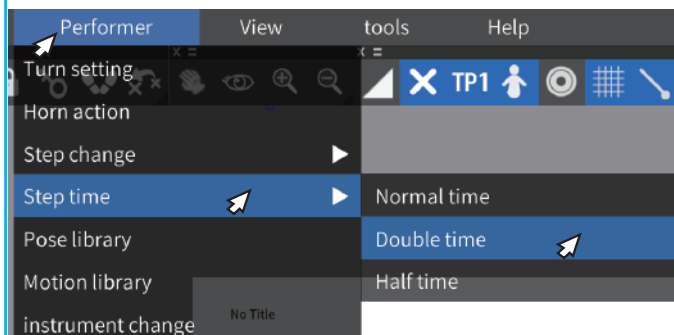
If the performer is moving between sheets, he or she will automatically return to the point on the previous sheet.

Halts are performed between sheets and cannot be set in detail by beats.

If you want to perform a halt & move in the middle of a sheet, please create a sub-sheet.

## Step Time (Normal, Double, Half-time)

Select a performer and use [performer] > [Step Time] to walk your chosen performer to double or half the tempo.



This setting is valid for only one sheet.

If you want to continue with multiple sheets, select the sheets you want to reflect and set them.

The drill studio has a function to automatically calculate measures and counts.

So instead of inserting a lot of counts, even if you move the whole thing at double tempo, set it to the score and set a double time for all performers.

## 21 Set Action

### Turn settings

Select the performer and choose [Performer] > [Turn settings].

Each person can set the turn by seat.

The turn occurs between the previous sheet and the current sheet.

There are three types: travel direction, look point, and angle specification.

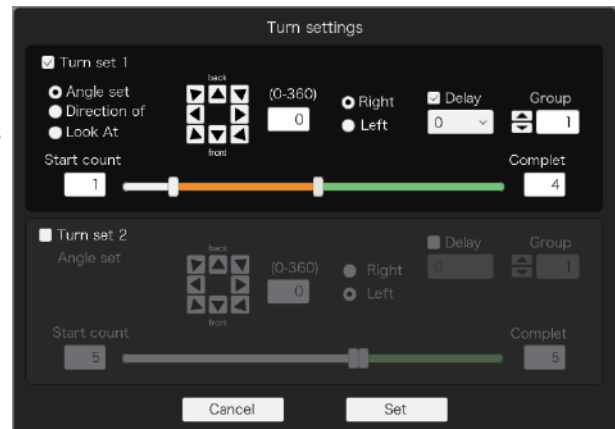
The rotation starts from the start count and reaches the specified angle at the end count.

When turn settings are made, the angle is maintained until the next sheet on which the turn settings are made.

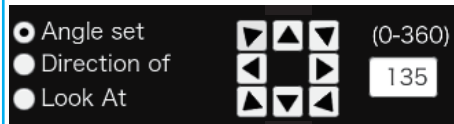
For example, if you want to stop the direction of travel and turn to the front, set the turn at 0 degree angle at that timing.

By using setting 2, you can set 2 types of turns between 1 sheet.

Setting 2 is for angle only.



#### Specify angle



You can set the angle with the ► button.

Orients to the specified direction at the specified timing.

The button is set to 45 ° ,

but you can specify a smaller angle by entering a number.

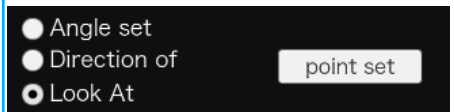
#### Direction of



Orient to the direction you want to go.

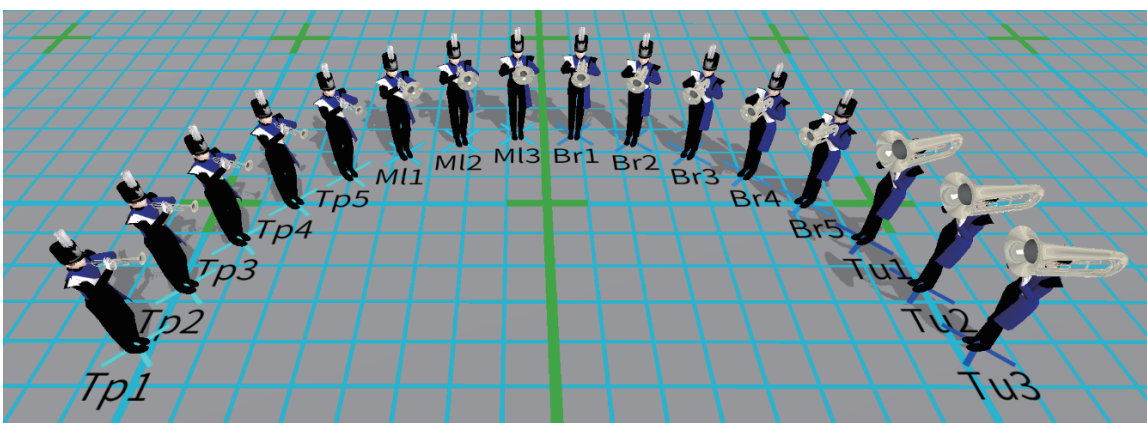
Always goes forward for any angle.

#### Look Point

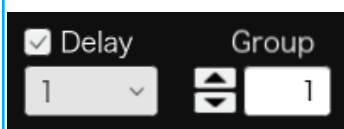


Always points at the point where you click.

Continues to point as your location moves.



#### Delay Setting



Delay is a function to shift the timing according to the performer's selection order, and select a number between 1~4 beats in turn setting. For details, see [Horn Action Delay Settings P 41].

## Horn action

Select the performer you want to configure [Performer] > [Horn action].

Applies instrument, arm, and neck poses, such as horn-down and horn-up, to the selected performer.

Affects the previous sheet to the current sheet.

For example, when a performer who is in a horned-down state is horned-up, the bell is moved from the start count to the end count.

After that, unless instructed, bell up will be continued.

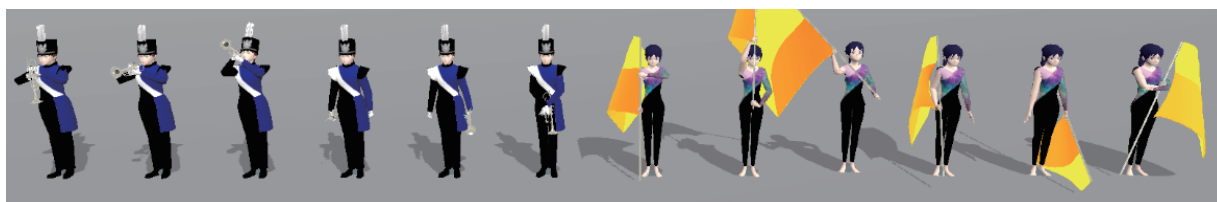
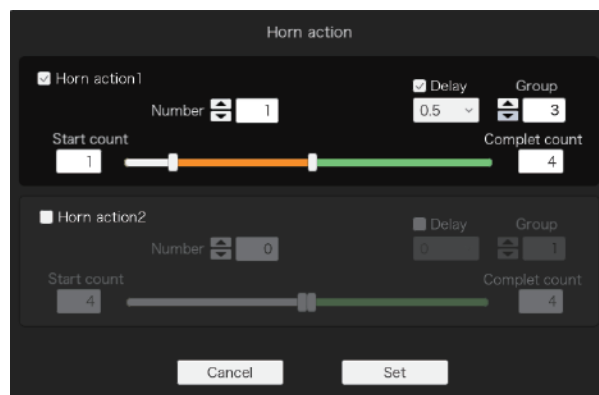
If you want to restore, set again.

Horn action is different for each instrument.

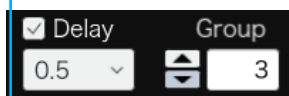
Changing the number changes the selected performer's pose.

Move the window and make sure that the desired pose is set.

By using setting 2, you can set two kinds of actions between one sheet.



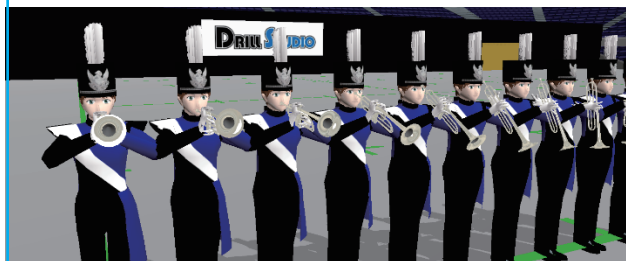
## Delay Setting



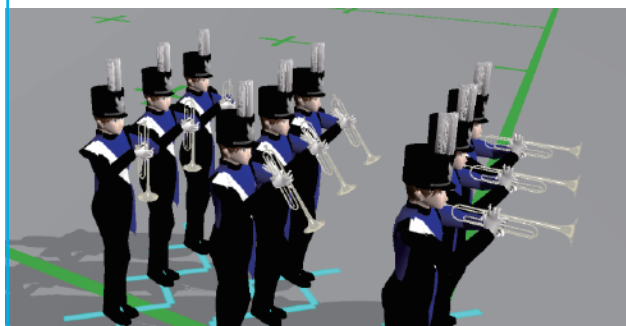
Delay is a function to shift the set timing according to the performer's selection order. Choose a number between 0.25~2.

0.5 is a half beat and 1 is a beat offset.

By setting the group, the action is performed in units of the set number of people.



When a group is set to 1, each person moves one by one, so the action is like a wave.



If the group is set to 3, the action will be performed in groups of three.

Delay is available only between sets (between sheets).

Once you set the delay, the delay is unchecked when you open the horn action again.

In case of resetting, re-check.

Use the Offset Copy tool when you need to perform actions across subsheets.

## Pose library

Various poses can be made.

Select the performer and choose [Performer] > [Pose library].

Unlike the horn action, the pose is the same for all parts.

The poses you can set here can be set to move other than the part that works in the horn action (arm, neck).

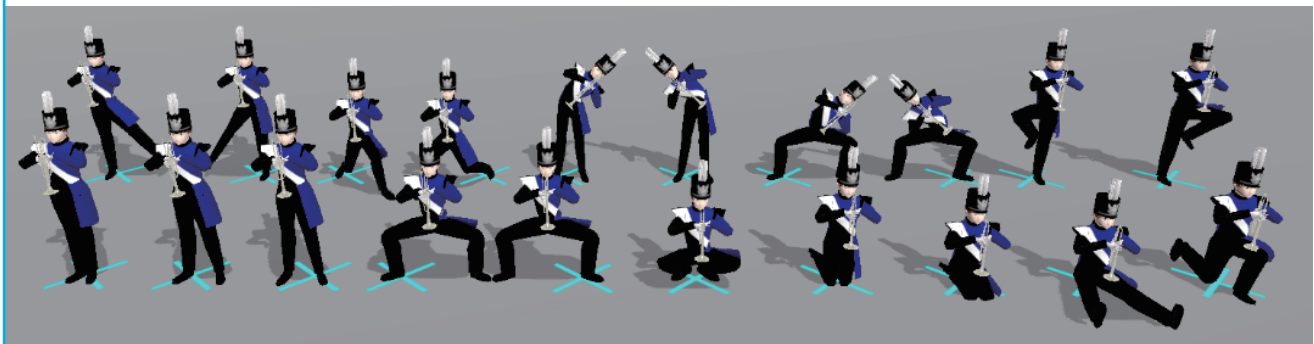
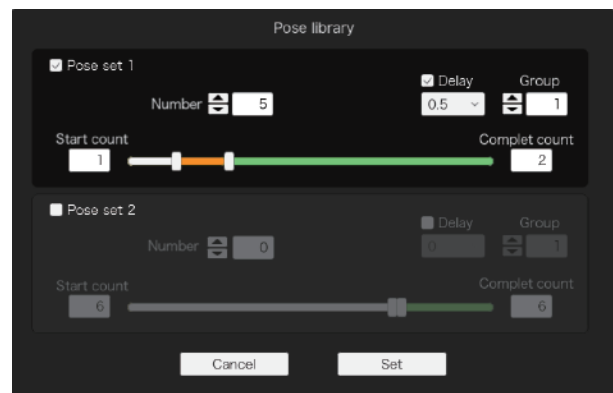
Changing the number changes the selected performer's pose.

Move the window and make sure that the desired pose is set.

By using setting 2, you can set two kinds of actions between one sheet.

Like the horn action, you can set the delay.

See the Horn Action page for details on working with delays.



## Motion library

You can have them perform various sequential actions.

Select the performer and choose [Performer] > [Motion library].

The motion follows the motion number in sequence. Even with the same number, the operation differs depending on the part and section, toss and spin of the flack, etc. are prepared in advance for each section.

The length of the set motion depends on the part or number.

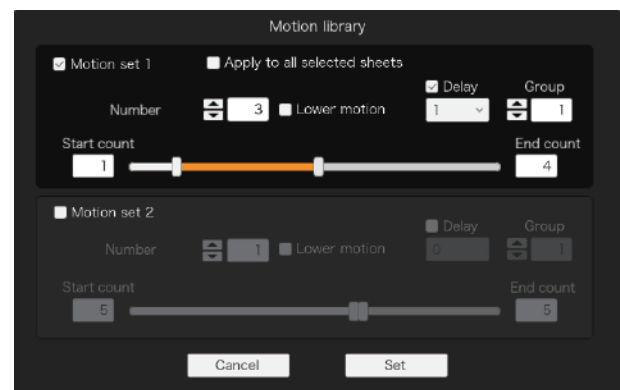
If the length from the start count to the end count is longer than the length of the action, the motion is repeated; if it is shorter, the motion is played halfway.

The motion assigned to each section or instrument is different.

Normally, the lower body prioritizes walking, but you can set motion for the lower body by checking Lower Body Motion. By using setting 2, two types of motion can be set between one sheet.

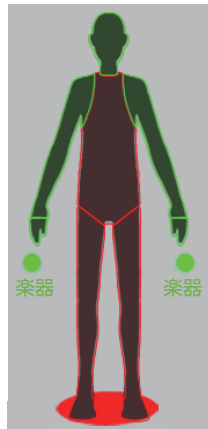
If you select multiple sheets and check [Apply to all selected sheets], you can set the same motion for all selected sheets.

The delay can be set in units of one beat.

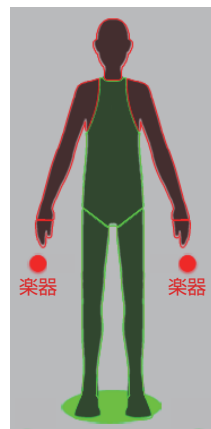


## Precedence of various actions

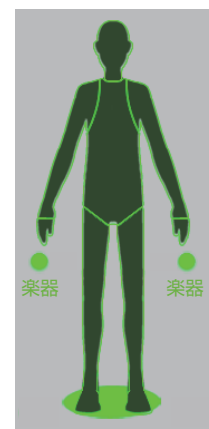
Upper body action



Lower body action



Full-body action



### Upper body action

The settings in the Horn Action are applied to this range.

The actual control is not over the upper body, but over the arms, neck, and hand-held instruments and sticks, so the rotation of the hips is controlled by the Pose Library.

### Lower body action

The Walk Behavior (Low step, double time, etc.), Hold, and Pose libraries fit into this range.

Pose library has priority over hold and hold over walking.

### Full-body action

The motion library usually applies to actions on the upper body only, but you can set motion on the whole body by checking [lower body motion].

You can also blend with poses (lower body) if [lower body motion] is not checked and you have a pose library set up.

### Multiple Configuration Example

Using the March, Turn, Horn Actions, Pose Library, and Motion Library, you can create more than 300 poses.

You can configure complex actions by adjusting the timing of the actions.



Upper: Horn [5]  
Lower: pose [1]



Upper: Horn [4]  
Lower: Free run



Upper: motion [3]  
Lower: poses [1 1]



Upper: motion [1]  
Lower: poses [2]  
Turn [270]



### Special tool that makes it easy to create complex movements

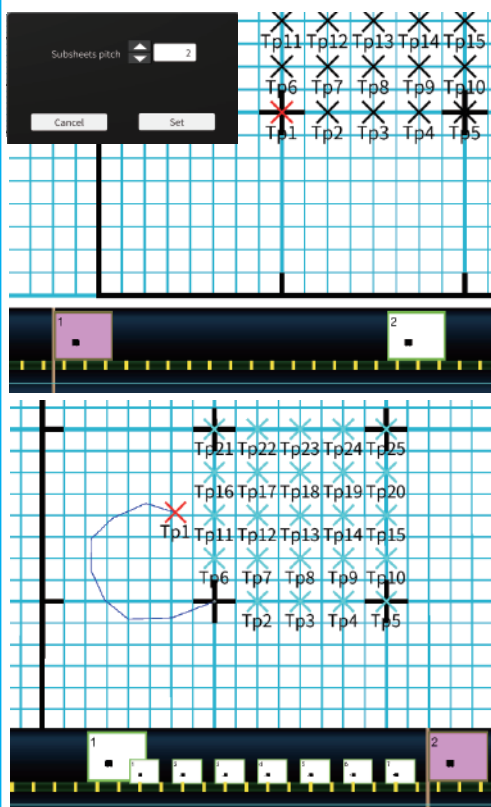


Provides tools that make it easy to create complex movements with a variety of subsheets.

### Free move



You can continuously set the movement of a single performer's subsheet. This allows you to express curvilinear free movement.



- ① Create a temporary sheet (Sheets in the set to free move) after moving it.
- ② Select the sheet before the move, not the sheet you created.
- ③ Select the performer you want to free move.
- ④ Click the Free Move tool.
- ⑤ Set the desired spacing for subsheet pitch and click Create.
- ⑥ Click the mouse to enter the movement.

This feature is enabled when only one person is selected.

The finer the subsheet pitch, the smoother the movement will be, but you will have to consider the movement of other performers as well. If there are no subsheets, subsheets are automatically created.

If there is already a subsheet, the position information is recorded in the subsheet. When you reach the next sheet, the input is automatically finished.

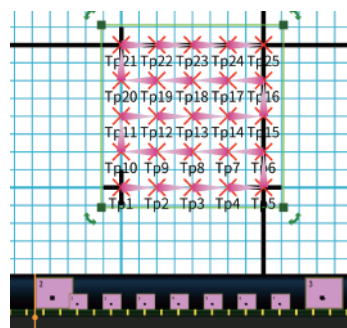
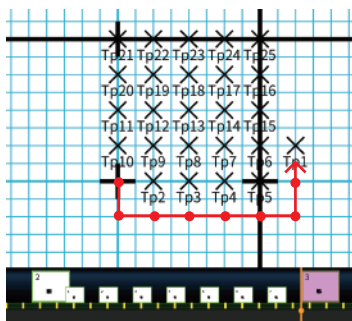


## Auto Follow Tool (FTL)

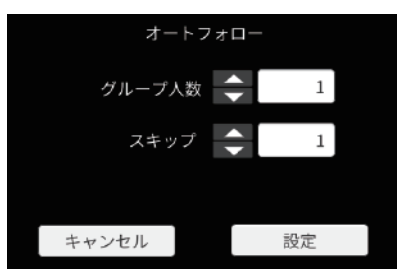


Auto Follow tool is create movements that follow a specified performer.

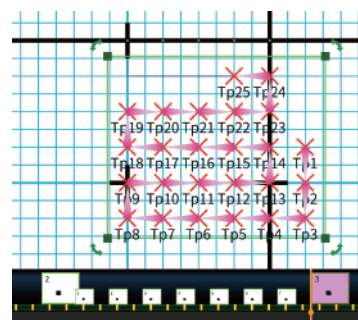
This allows you to create Follow the Leader movements, such as following a leading performer or creating outer-circle parade formations.



- ① Create sub-sheets between sheets and design the movement of the lead performer.  
Using the Free Move Tool allows you to create this quickly.



- ② Select all sheets that will use Follow the Leader.  
Select the performers to follow in order, including the leader.



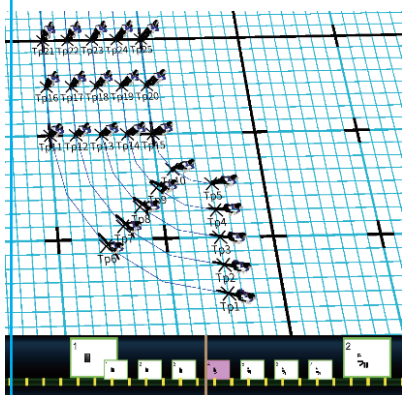
- ③ Click the Follow the Leader Tool.  
You can configure multiple groups at once using the Group Size setting.  
Normally, this is set to 1.

- ④ This creates Follow the Leader movements with TP1 as the leader.

In this setup, TP2 Sheet 1-1 is placed at the position of TP1 Sheet 1, TP3 Sheet 1-2 is placed at the position of TP2, and so on.

Each performer moves onto the previous performer's point two beats later.

This is a basic Follow the Leader pattern, but more complex patterns can be created by adjusting the Sub-sheet Pitch, setting it to 1, or using Skip settings.



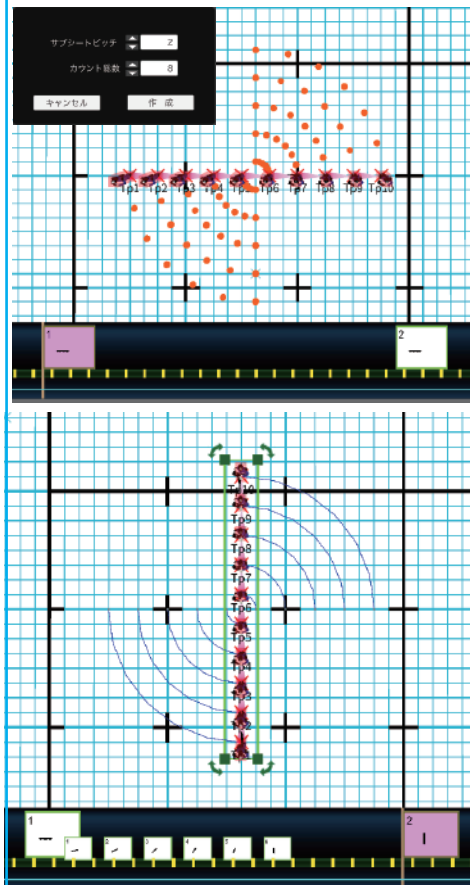
Parade formations like the one shown on the right also follow the lead performer and can be created using the Auto Follow Tool. By creating movements for the first five performers in advance and setting the Group Size to 5, you can configure five columns at once.

The leader's movement can be created efficiently using the Pinwheel Tool, which is explained on the next page.

## Pinwheel (PW)



Pinwheel is a function that rotates a line or group about a specified point.



- ① Create a temporary rotated sheet (Sheets in a Rotating Set).
- ② Select the sheet before the move, not the sheet you created.
- ③ Select the performer you want to rotate and click the Pinfield tool.  
Selection order has no effect.
- ④ Set the subsheet pitch and count total.  
The finer the subsheet pitch, the smoother the rotation, but the more subsheets there are, the harder it is to edit later.  
Count Total specifies the number of beats to complete the rotation.
- ⑤ Click the center point with the mouse to draw the rotation.  
The maximum rotation is 180 degrees. If you want to do more rotation, do it in two batches.  
In addition, the point may shift slightly due to calculation error in the 180 degree pin field, so make a fine adjustment after setting the pin field.

The pin field setting is done by count specification, not between sets, so it may be set beyond the sheet. The rotated sheet should be carefully positioned, or should be positioned at the back with room for adjustment.

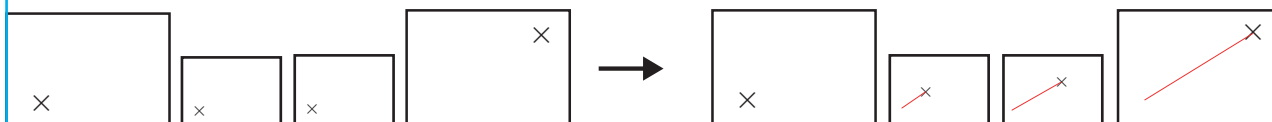
## Subsheet Interpolation



Subsheet Interpolation tool

Interpolates the positions of the intervening subsheets in a linear motion from the position of the previous main sheet to the position of the current sheet.

You can use it to translate another group of performers with a detailed subsheet, such as a follower reader or a pin feel.



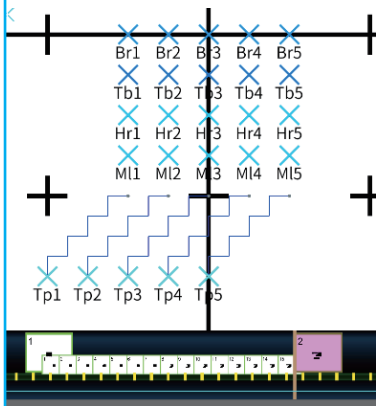
This tool is valid between main sheets.

If you want to interpolate from the middle of a subsheet, you can switch to the main sheet once, interpolate, and then return to the subsheet later to interpolate from the middle.

## Offset Copy



You can make the same movement for each specified group.  
You can copy not only movements, but also horn actions, poses, and so on.  
Skip lets you shift the timing to create the effect of the wave.



Similar to the following leader, but follows the leading motion  
Instead, all selected performers do the same thing, without beats.  
I'll come and do it.

Set the number of groups you want to perform the same movement  
at the same time.

Skip is the number of subsheet skips.

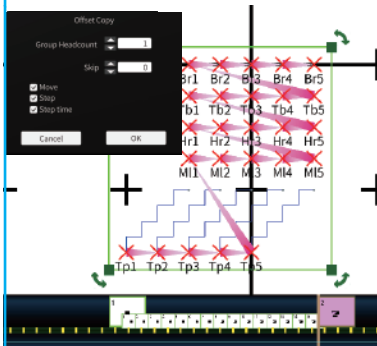
If subsheets are created per beat, skip 2

It is a movement of 2 beats.

In the case of a subsheet for every 2 beats, if it is skip 2,  
the movement is shifted by 4 beats.

to set the options.

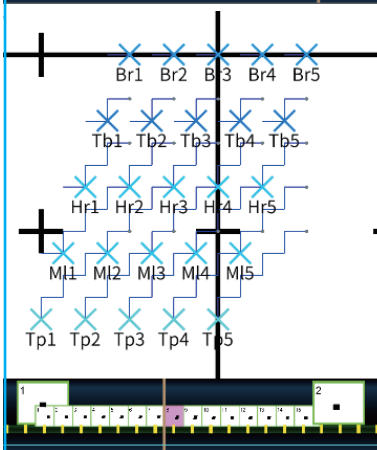
Quickly perform various actions such as subsheet pitch, setting  
value, and selection order to create them.



You can also set the skip to 0 and do the same thing at the same  
time.

You can copy only steps and step times, not just motions.

Offset copy copies only the differences that have been moved to  
the specified sheet, regardless of whether the movement is on  
a subsheet or the main sheet.

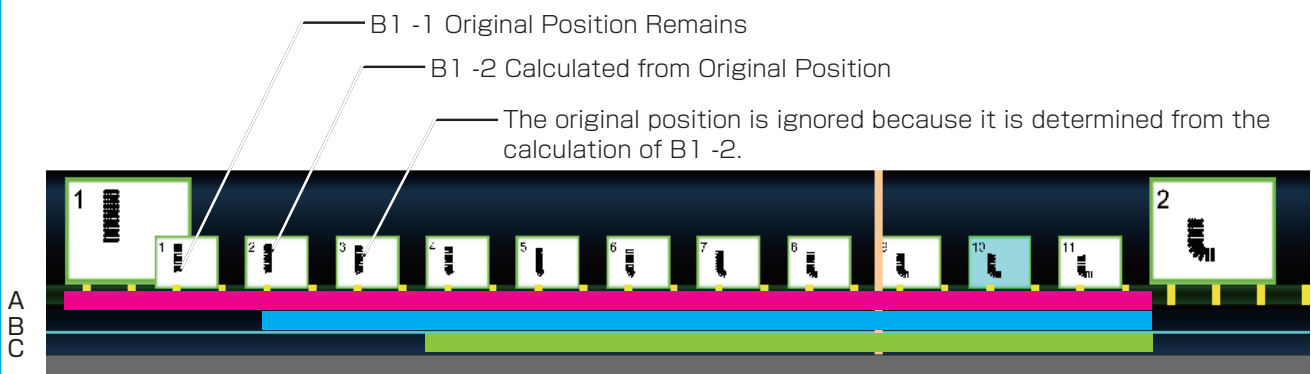


If you think of performers A and B as skipping 2, the 1 -1 on A  
becomes the 1 -3 on B.

At this point, B moves from the point at 1 -3 to the point at 1 -1,  
so the result changes depending on where B is at 1 -3.

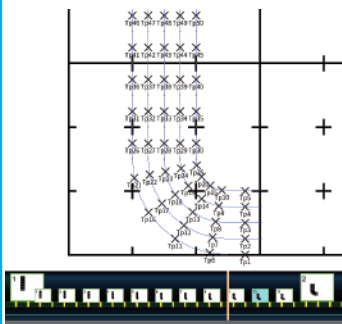
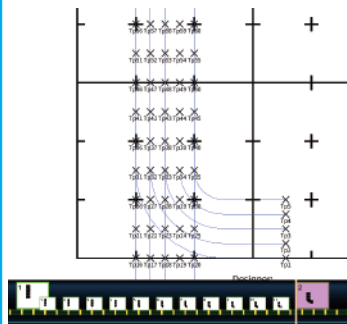
Since 1 -4 of B is calculated from the position after 1 -3 of B has  
moved, any position after 1 -4 of B is overwritten, so it does  
not matter.




This allows you to create special movements.



## combination of special tools

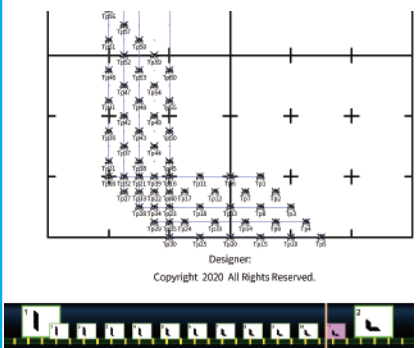
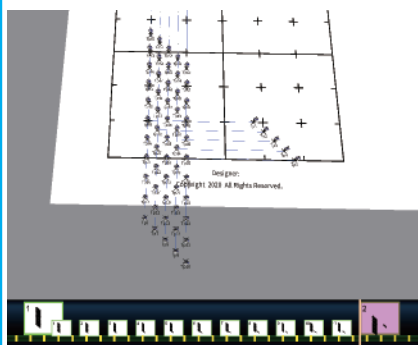
### Parade Turn






- ① Place the performer and create the main sheet after 24 counts.
- ② Use  to create a 90 degree pinfield in the first column with a subsheet pitch of 2 and a total count of 16.
- ③ On the last sheet, move the first column 8 steps to the left and add a subsheet at pitch 2.
- ⑤ Go to the last sheet, select any column other than the first, move it 24 steps down, and click .
- ⑥ Move to the first sheet, use the Z button to select it, move to the last sheet, and click .
- ⑦ Set the group to 5 and the skip to 2, then press OK.

The parade turn is completed as shown on the left.

### Cross Spin



- ① Place the performer as before, and after 24 counts, create the main sheet.
- ② Move to the last sheet and create a subsheet at pitch 2.
- ③ Change the sheet in the first subsheet (1 -1) to the main sheet.
- ④ On the last sheet, move the first performer 22 steps to the right and click .
- ⑤ Move the non-first column down 24 steps, and click .
- ⑥ Use the Z button to select the first sheet, move to the last sheet, and click .
- ⑦ Set the group to 5, set Skip to 2, and press OK.

The cross turn is completed as shown on the left.

Turn settings associated with a direction change can be set to all by using the delay function of turn settings.

### Edit performer mark



The center of the performer mark is where the performer stands. This mark is expressed in text and can be changed freely. Click [Performer] ► [Properties]. If multiple performers are selected, all are affected.

Property

☒ Mark color

☒ Mark text
 

x

☒ Mark size
 

100

☒ Label text
 

Tb1

☒ Label size
 

50

☒ +Number
 

Start No.

☒ Position
 

X 0 Y 0.5

☒ +Number
 

Start No.

☐ Position
 

X 0 Y 0

☒ Change model
 

Men

☐ Model texture
 

browse def

☒ Flag texture
 

browse def

☒ Change hat
 

Shako Hat

☐ hat texture
 

browse def

☐ Attach object
 

release

☐ Hide the original model

☐ Z movement method
 

Collision

Z value

☐ Print setting
 

don't print

Cancel

Set



You can change the color and size of the mark.

If you check the item you want to change, you can edit the value of the item.

If you change the text of a performer mark, the center may shift depending on the type of characters, such as symbols.

To prevent this, you can adjust the offset finely.

When [+ Sequential] is checked and a starting number is set, a sequential number can be automatically set after the mark or label.

It is also possible to give a sequential number to everyone by leaving the label text blank and setting a sequential number.

You can also use this property to change the performer's hat, texture, and so on.

For details, see [Original costume settings P64].

## Move label position

Depending on the formation shape, the labels may overlap and be difficult to see. You can only move the label location on each sheet.

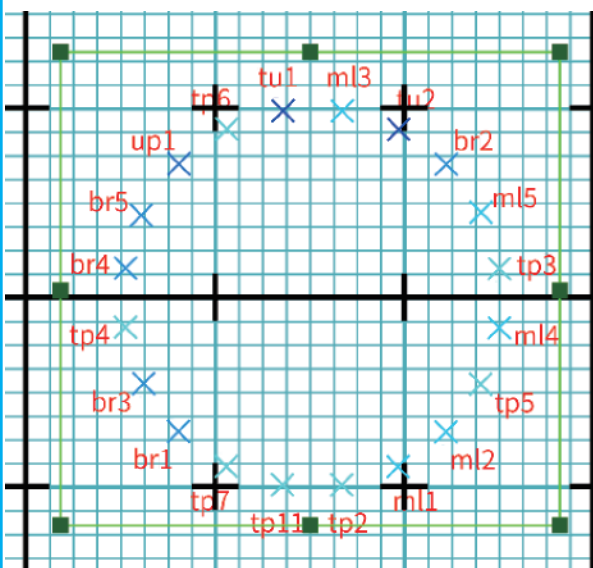
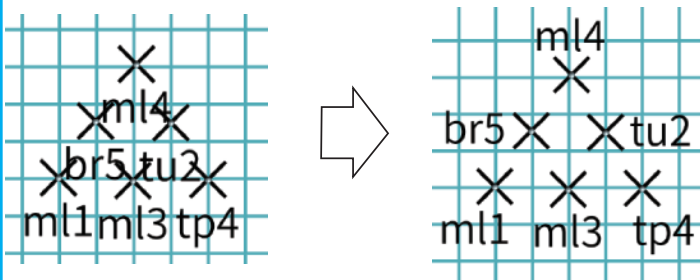


### Label Position Mode

You can select and move labels by turning on Edit Label Location.

The moved label affects only that sheet.

If you want to affect all sheets, use the offset of the label position by [Properties] on the previous page.



Label position editing can be used in conjunction with a variety of tools, such as zoom, rotate, and line and arc tools for easy viewing.

When you finish editing the label, press the Edit Label Positions button again to turn it off, and the performer mark will be in normal mode for selection.

## Return the label to its initial position

Return the performer's label to its normal, unmarked position on [Performer] ► [Reset label position].

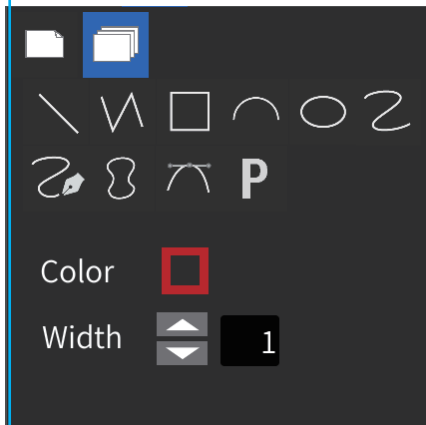
### Insert line or shape



D-Line Edit Mode

Click the Edit Line Mode button to display the Draw Line tool. Line editing mode can be broadly divided into There are four modes.

D-Line tool



- ① Draws a line single sheet with only one sheet specified pressed.
- ② Create in the state that all the line sheets which are commonly displayed in all the sheets are pressed.
- ③ Create in the 3D stage mode with the line single sheet + stage mode pressed, which is displayed with only one specified sheet.
- ④ In the 3D stage mode, the line that is commonly displayed on all sheets is created with all sheets + stage mode pressed.

Lines in 3D Stage mode are not plotted.

With the D-Line tool

●Line Color

●Line Weight

You can set the.



Single sheet / all sheets



sheet / stage

You can draw a variety of shapes with the draw line tool.



Click on the start and end points to draw a line.



All lines are connected and created with each click. Right-click to confirm.



Click on the start and end points to draw a rectangle.



Draw an arc through the first click point, the second click point, and the third click point to determine the arc.



The first click determines the center point and the second click determines the size.



Repeat clicking to draw a beautiful curve. (Spline curve)



Drag to draw a line freely.



Repeated clicks draw a closed, clean curve. (Closed Spline)



Drag a handle to draw a Bezier curve.



The Point Maker tool sets the name of the point. It appears only when you are in All Sheets mode. See [P63] for more information.



If you want to delete a shape, right-click the shape and choose Delete [Delete].  
You can also delete them by pressing the [Delete] key.

You can move shapes by dragging them.

If you are not in line edit mode, you cannot select or move.

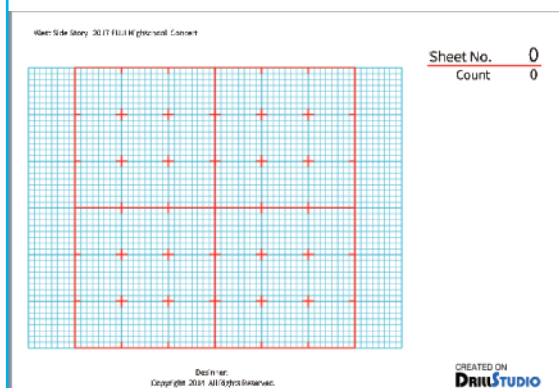
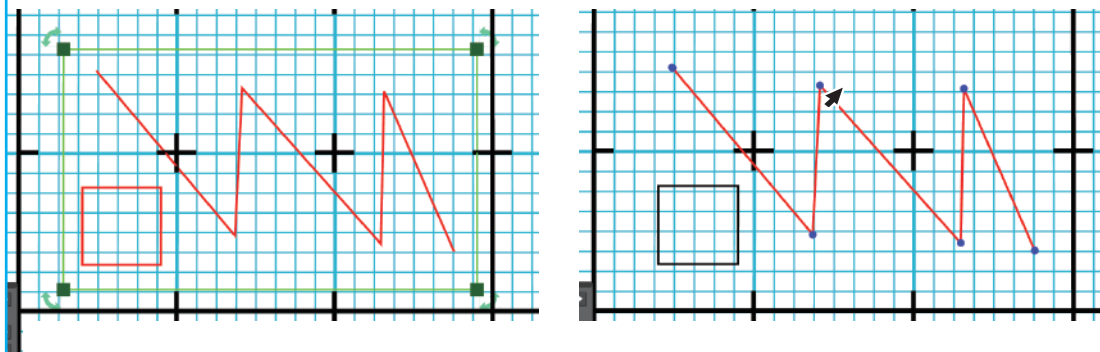
Shapes created in All Sheets mode can only be selected in All Sheets mode.

(Geometry created in all sheet modes cannot be selected in single sheet mode)

If you want to edit a shape's points, double-click the shape you want to edit.

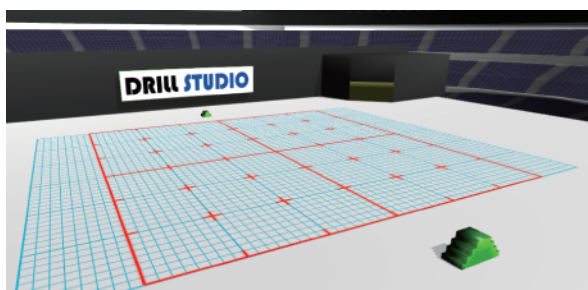
The points are then displayed and you can move them.

However, you cannot modify points on lines created with circles, ellipses, or pens.



All black lines on the default sheet are created in line edit mode.  
(All Sheets Mode)

Blue lines are created by grids.



All marker lines on the Stage are also created in line edit mode.  
(All Sheet Mode + Stage Display)

Blue lines are created with a grid.

You can delete and edit these lines to create the original marker lines.

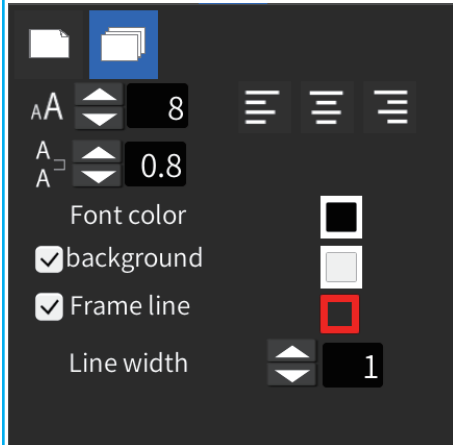
## Inserting Text



### Text Edit Mode

Clicking the Text Edit Mode button brings up the Text tool. There are four main text editing modes, as well as line and image.

#### Text Tool



- ① Text displayed on only one sheet specified  
Created with a single sheet pressed
- ② Text that is commonly displayed on all sheets  
Text displayed on all sheets
- ③ In 3D Stage mode, text displayed only on the specified sheet.  
Created with a single sheet + stage mode pressed
- ④ In 3D Stage mode, text commonly displayed on all sheets  
Created with all sheets + stage mode pressed

With the Text tool

- Font size, font color
- Line spacing, text alignment
- Background, background color
- Border color, border thickness

You can set the.

Lines in 3D Stage mode are not reflected in printing.

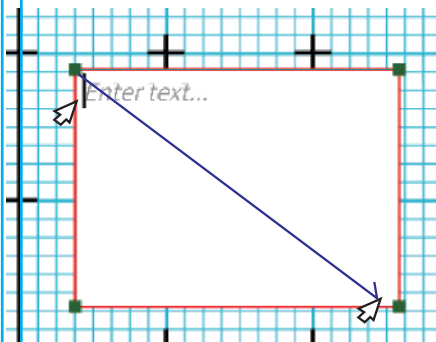


Single sheet / all sheets



sheet / stage

### How to create a text box



Text and background colors can be changed.

Text and background colors can be changed.

In text edit mode, double-click and drag anywhere to insert a text box.

By creating a text box of the required size in advance and entering text in it, you can place text anywhere you like.

You can freely change the text size and background.

By not using a background, only text can be placed.

You cannot change the color of the text in the middle of a text box.

If you want to change the color of only a part of the text, you must create multiple text boxes on top of each other.

## Editing and Deleting Text

To edit text, double-click on the text box to switch to edit mode and text can be edited.



To delete a text box, right-click on the box and select [ Delete ].

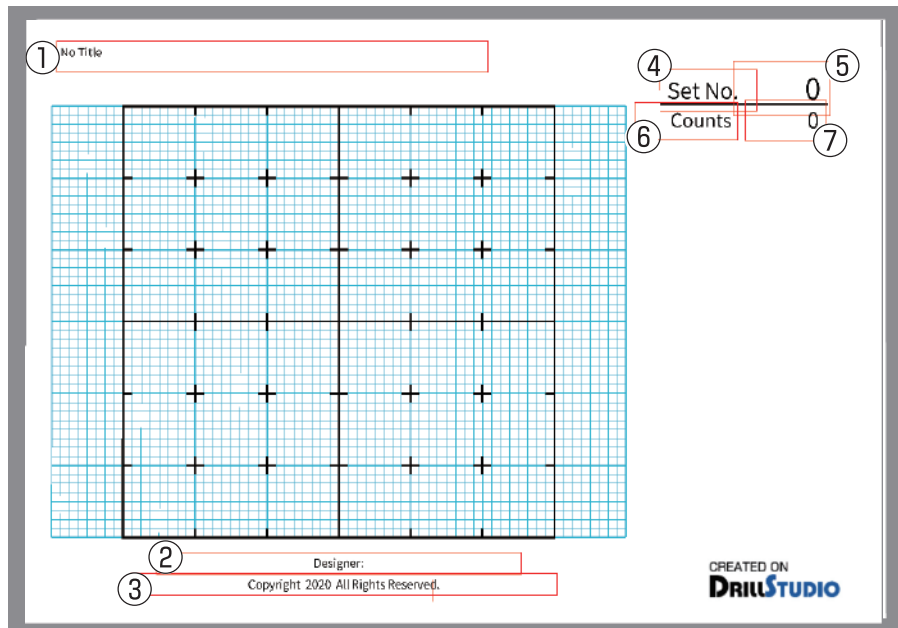
You can also delete a box by pressing [delete].

Boxes can be moved by dragging.

If you are not in text editing mode, you cannot select or move a box. Also, text created in all-sheet mode cannot be selected when not in all-sheet mode.

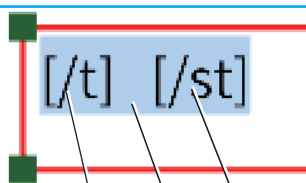
(You cannot select a text box on a single sheet when in All Sheets mode.)

## Tag input (auto-calculation)



The default sheet has 7 text boxes created in all sheet mode.

- ① Title + Subtitle "[/t] [/st]"
- ② Designer "Designer:[/d]"
- ③ Copyright Information "[/cp]"
- ④ "Set No."
- ⑤ Number of sheet number "[/s]"
- ⑥ "Counts"
- ⑦ Counts number "[/c]"



If you try to edit the title in the upper left corner, you will see something like this. This is called a tag. The title and subtitle are done in the title settings. The set information will be displayed where this tag is inserted. When you finish editing, it will be converted automatically.

Subtitle tag [/st].

space

Title tag [/t]

No Title Title setting

Title

West Side Story

Subtitle

2017 FUJI Highschool Concert

Title + <sup>space</sup> + Subtitle It goes like this.

West Side Story 2017 FUJI Highschool Concert

## Tag and character combinations

Enter [/○] for the tag.

The area enclosed by [ ] will be replaced by the contents of the specified tag.

For example, if you enter the following

The current sheet is the #[/s]. The count for this sheet is [/c].

The tag portion is replaced and the current sheet number, count, etc. are automatically calculated and converted.

The current sheet is the #21. The count for this sheet is 16.

The calculations are automatic, even if the sheet array is changed or the counts are changed, so that the display is always correct.

Calculations related to measures, such as [/ms] [/me] [/meas], require a measure setting.

## Tag List

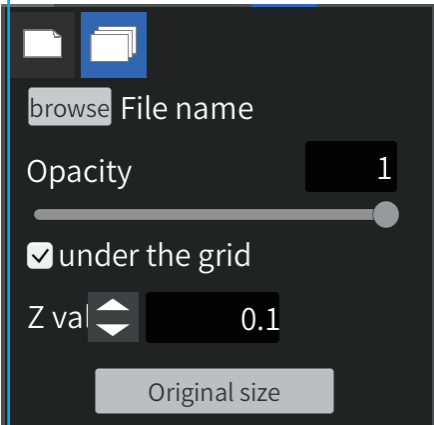
- [/s] Sheet number (12, 12-2, 12-A, etc.)
- [/c] Count (count from previous sheet if sub-sheet is printed, count from previous main sheet if no sub-sheet is printed)
- [/ca] Count of all counts up to that sheet
- [/t] Title set in Title settings
- [/st] Subtitle set in Title settings
- [/d] Designer set in Title settings
- [/cp] Copyright information set in Title settings
- [/ms] First measure of the sheet
- [/me] Last measure of that sheet
- [/mc] Number of measures on that sheet (one measure counts even if it is in the middle of a measure)
- [/ts] Start beat of that sheet
- [/te] End beat of that sheet
- [/meas] Compound notation for the measures of the sheet (22-24, 22(1-2), 22(3)-24(2), etc.)

## Insert image



Image Edit Mode

Image tool



With the Image tool

- Insert image
  - Image opacity
  - Image overlap order
- You can set the.

Clicking on the Image Edit Mode button brings up the Image Tool.

There are four main image editing modes, as well as line and text editing modes.

- ① Image displayed on the specified sheet only  
Created with a single sheet pressed
- ② Image commonly displayed on all sheets  
Image created with all sheets pressed
- ③ In 3D Stage mode, an image displayed on the specified sheet only.  
Created with a single sheet + stage mode pressed
- ④ In 3D Stage mode, an image commonly displayed on all sheets  
Created with all sheets + Stage mode pressed

Lines in 3D Stage mode are not reflected in printing.

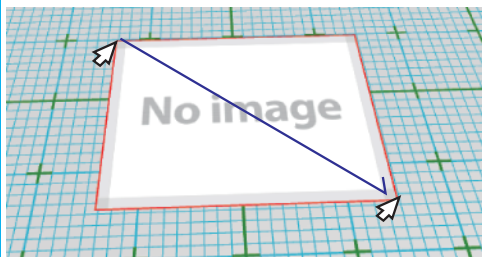


Single sheet / all sheets



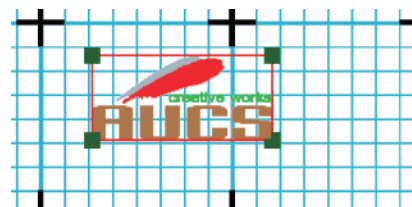
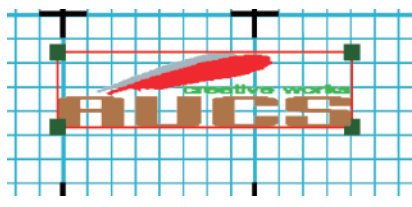
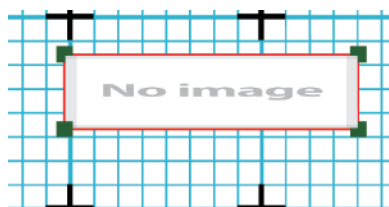
sheet / stage

### How to create an image box



Double-click & drag anywhere to create an empty image box.

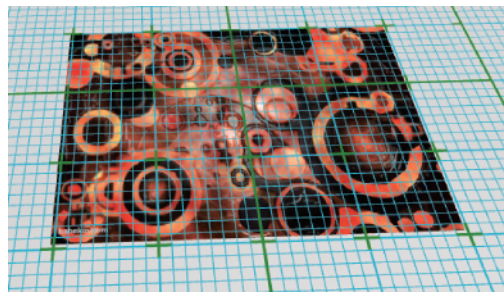
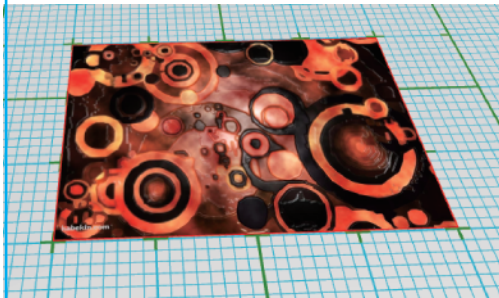
Select the created box, then browse for an image with the Image Tool and select it from a file.



Create an image box at the appropriate size and set the image in it.

Click the Original Size button to adjust the aspect ratio to the original.

Hold down the [Shift] key to zoom in or out while keeping the aspect ratio fixed.



The transparency of the image can be changed to make the performer more visible or inserted below the grid. The image can be enlarged or reduced using the bounding boxes in the four corners that appear when the image is selected. To return to the original image size, press the Original Size button.

Hold down the [Shift] key while zooming in or out to fix the proportions.

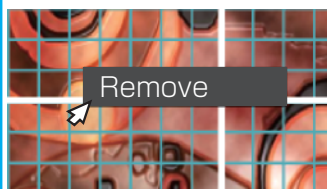
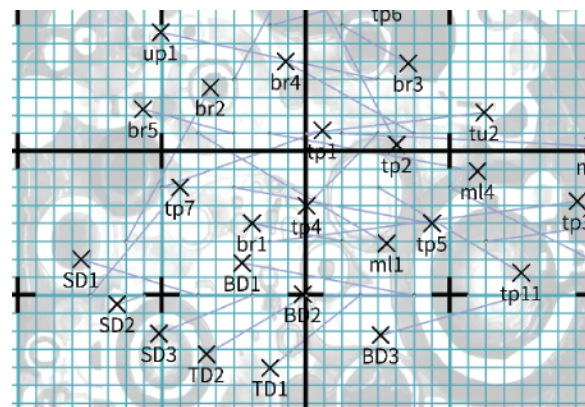
本来の画像



印刷用に薄く加工



As with text and graphics, separate images can be created for the stage and for the sheet. By preparing a processed image for the sheet, it is possible to create a sheet that is easy to view when printed.



To delete an image, right-click on the image you wish to delete and select [ Delete ]. You can also delete an image by pressing the [delete] key or the trash button.

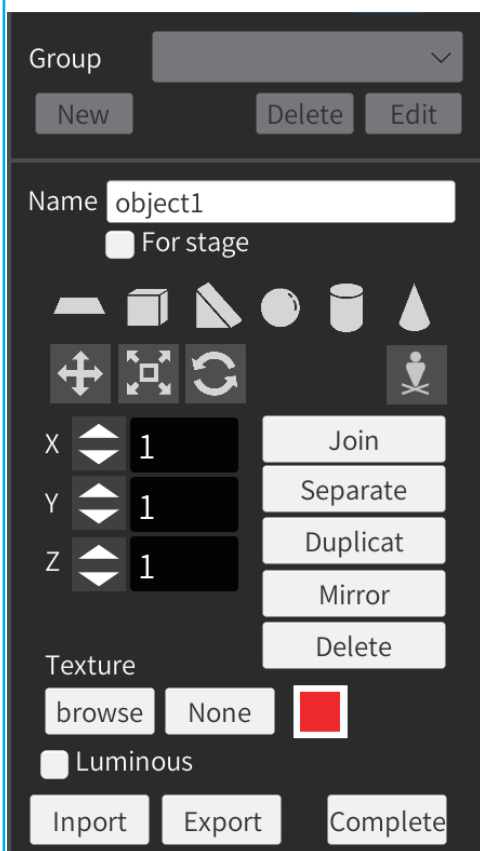


## 25 Creating Prop Objects



### Object Edit Mode

#### Object Tools



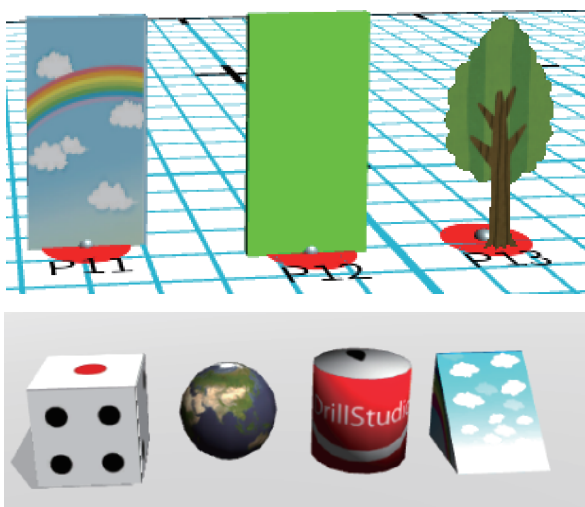
Using the Object tool, you can create objects for props and stages.

Objects can be exported and loaded into files as object groups.

The object group data is also included when the dsm file is saved.

Six types of objects are available: planes, cubes, spheres, cylinders, cones, and triangles. Each object can have a texture.

Transparent PNGs can be used to create props of various shapes.



### Used as a prop



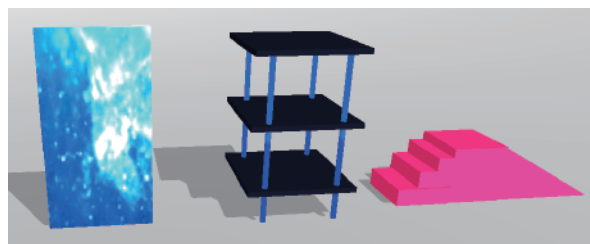
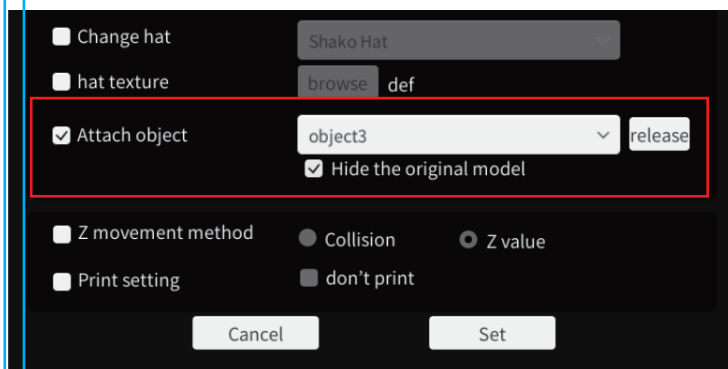
When a prop is created from Add Performer, it will appear as shown on the left. Create an object of the desired shape with the Object Tool beforehand.

Select the prop and choose [ Performer ] > [ Properties ].

In the Properties window, check the [ Attach Object ] checkbox and set the object you created in advance.

At this point, the original brown panel is still there, so check [ Hide original model ] to hide the original model.

The object will now be a prop that can be moved.



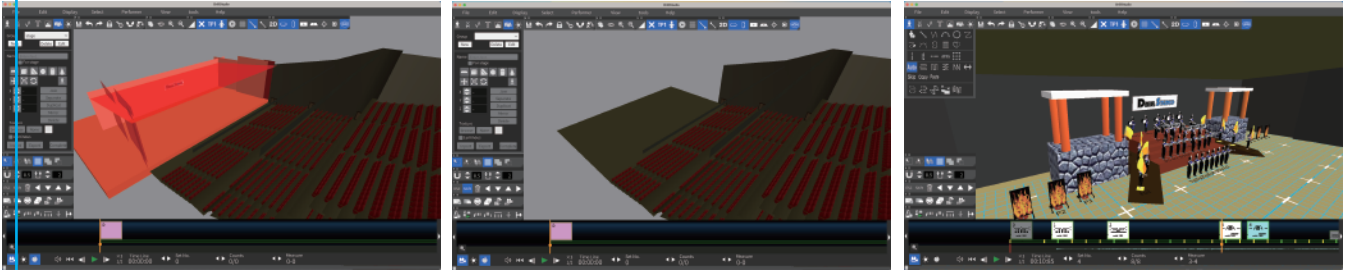


## Used as a stage

When creating an object group, check the [ For Stage ] checkbox to create the object as a stage-specific object.

These objects are displayed in stage mode and cannot be moved.

The stage echo boards and other elements of the small and large stages provided as standard stages are created using these stage-specific objects, so stage layouts with a high degree of freedom can be created by deleting and rebuilding these objects.



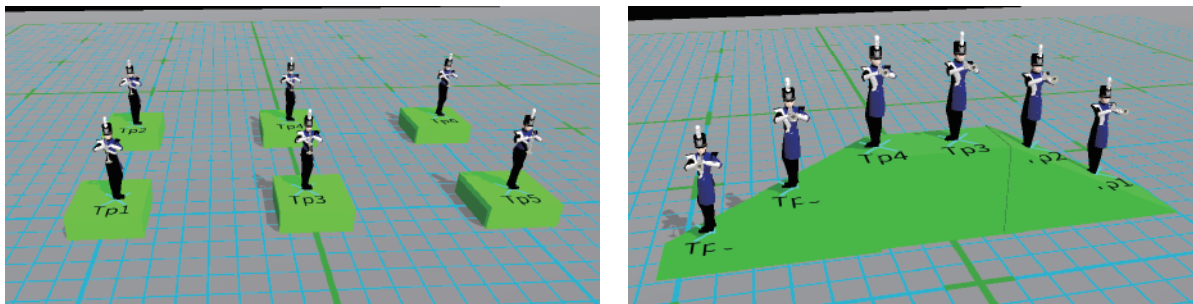
## Placement of performers on top of objects

Select the Performer and choose [ Physics Collision ] in [ Performer ] > [ Properties ] under [ Move Method in Z ] to allow the Performer to climb the object.

Vertical steps are limited in height (about 1 meter).

If you want to put the object on a large high platform, create a ramp or stairs.

The object can be used as a platform for both stage and prop.



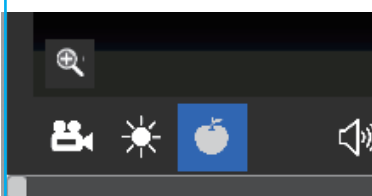
If Collision Processing is unchecked, the prop is ignored and penetration is performed.

Since the collision processing is performed by the physics engine, the collision may not be properly handled when playing back from the middle of a scene or reversing a scene, so playback should be started a little earlier.

In addition, you can set the Performer's position in the Z direction on a sheet-by-sheet basis by selecting [Specify Z value] in the [Z direction movement method] menu. Select [Performer] > [Change Z position].

This setting allows the Performer to move in the Z direction as well as in the X and Y directions on a sheet-by-sheet basis, so that the Performer can float in the air even without a prop or other base.

As with normal point movement, the movement between sheets is automatically interpolated. However, if collision processing is checked, the falling physics calculation is given priority even when floating in the air.



Turning off the apple icon in the Effects tool will force the physics to stop.

However, this is only temporary. If you want to completely stop the physics, set the "Move Z" method to "Z value" for all performers.

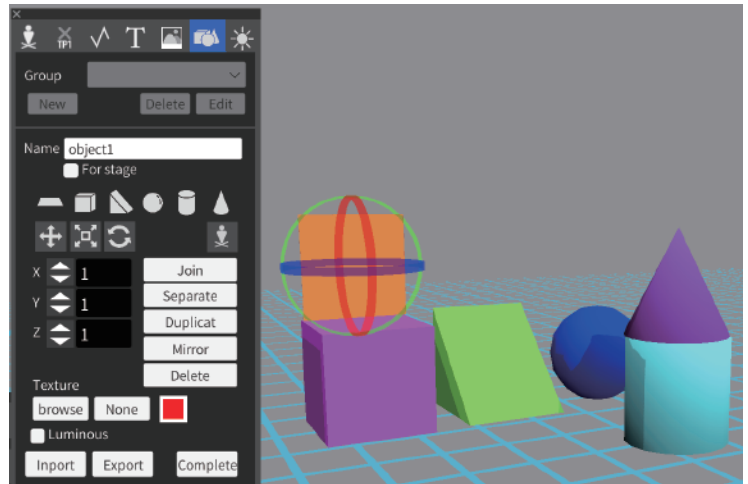
## How to operate the Object Tool

To create an object, first create an object group using the New button.

Name the object group and use the buttons to place the objects.

Rotate, move, and zoom together to create the desired shape.

It is difficult to create complex shapes because basic shapes are processed, but you can create a variety of objects depending on your creativity.

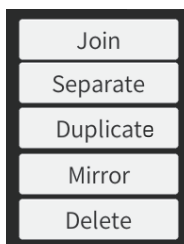


When creating multiple large objects, they tend to overlap, so they can be subdivided into object groups and used like layers for easier editing.



This button allows you to show or hide the Performer.

Use this function when it interferes with the creation of an object, or when you want to compare sizes with the Performer.



[ Join ] button to group them together.

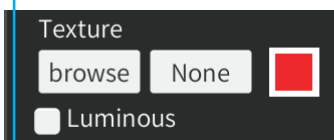
[ Separate ] button allows you to ungroup.

[ Duplicate ] button allows you to copy objects.

Note that the objects will be copied to the same location, so they will overlap.

[ Mirror ] button allows you to flip the object.

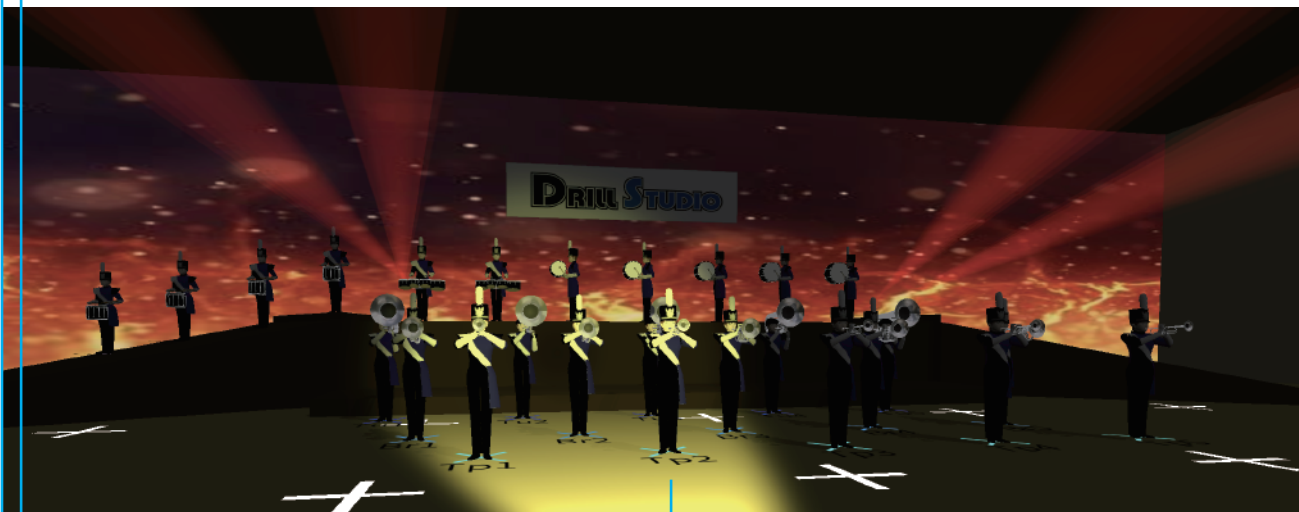
[ Delete ] button allows you to delete the selected object.



Each object can be textured.

Texture mapping layouts are available on the official Drill Studio website.

[ Luminance ] Check this box to make the object unaffected by the lightness or darkness of the lighting. This has the effect of making the object appear as if it is emitting light when the main lights are dark. Combined with lighting, this can be used to create effects such as a glowing stage background or a glowing ball.



## 26 Lighting settings



### Lighting Editing Mode

#### Lighting Tool



The lighting tool allows you to set the placement and effect of lights that will be reflected when the stage is displayed. Detailed light settings can be made on a sheet-by-sheet basis. Light actions are applied to the next sheet for which a light action is set. There are three types of lights.

#### Directional Light

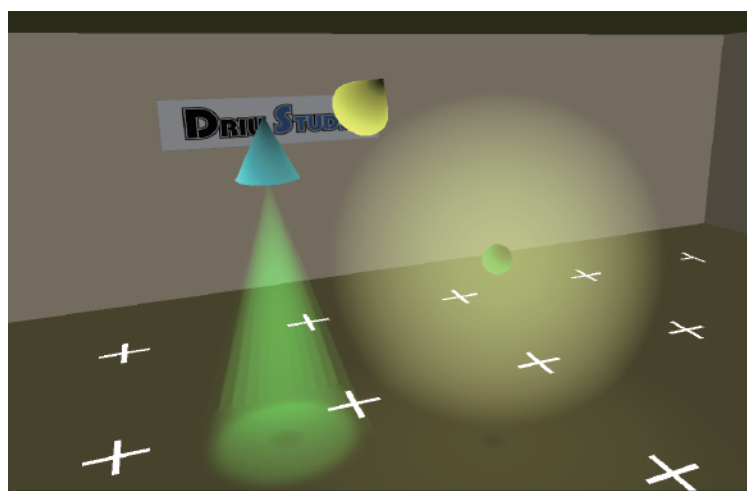
This light illuminates the whole area like the sun. One is set as the main light from the beginning.

#### Point Light

This light emits light in all directions and is similar to a light bulb.

#### Spotlight

Directional spotlight.



[ ON ]

Light switch. Uncheck to turn off.

[ Rainbow ]

The effect is to change the light to seven different colors.

[ Flash ]

Flash effect.

[ Static ] [ Swing ] [ Rolling ] [ Follow ]

You can select one of them. Swing and Rolling are performed at a fixed speed.

If you check [ Invert ], the direction of rotation is inverted.

If you choose Follow, select the Performer you wish to illuminate with the Settings button.

[ Intensity ]

The intensity (brightness) of the light.

[ Size ]

Affects only the spotlight. You can adjust the size of the spot.

[ Beam ]

Affects spotlights only. Allows you to adjust the intensity of the spotlight beam.

[ Range ]

Affects point lights and spotlights. Allows you to adjust the range of the light.

[ Drop Shadow ]

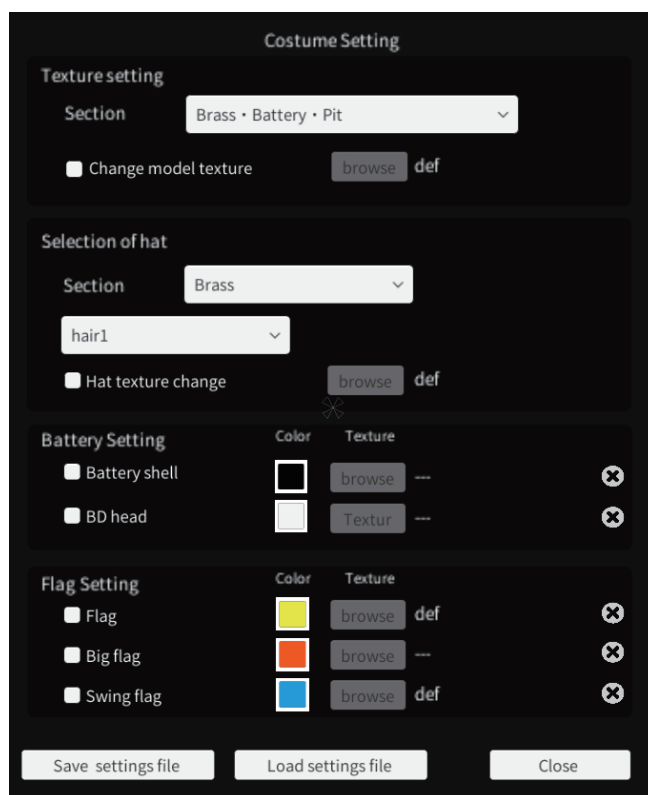
Allows you to set whether or not the selected light will cast a shadow.

The shadow button in the Effects tool temporarily removes the shadow, but unchecking this checkbox prevents the shadow from being drawn even if the shadow button is on.

## 27 Original Costume Setup

You can set up your own costumes in [ Edit ] > [ Costume Settings ].

You can create your own original costume set by setting the hat type, costume texture, color, etc. Costumes set here are set in sections and set to a shared material. This reduces the load on the screen rendering process (rendering) and can be saved as a costume set. If you wish to set up costumes by section, and then set up individual items with different colors and patterns, such as a hat for a drum major, you can do so by going to [ Performer ] > [ Properties ].



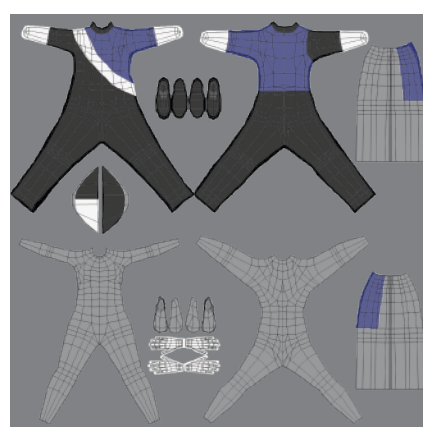
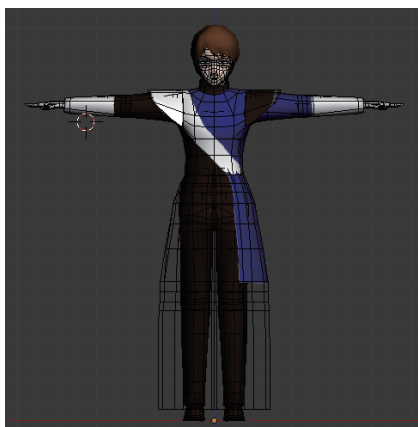
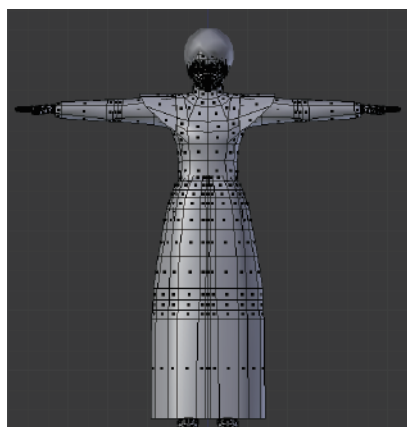
## Texture Settings

### Model Texture

Image editing software is required to create textures.

Please use software that can export in transparent PNG format.

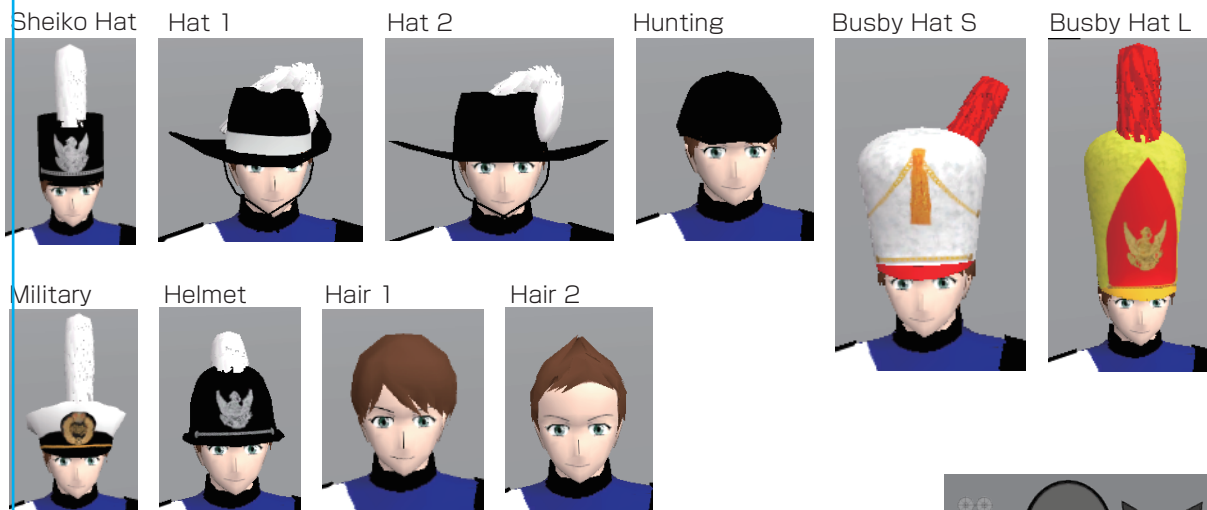
Only PNG format can be used. Texture maps and samples can be downloaded from the Drill Studio download page.



The polygons of the model are divided into body, costume, shoulder armor, and skirt. Parts can be excluded by making the relevant parts of the unwanted texture transparent. Skirts and sleeves can also be shortened or made into half-skirts by using different textures.

## Change hats, battery instruments and flag colors

### Type of hat

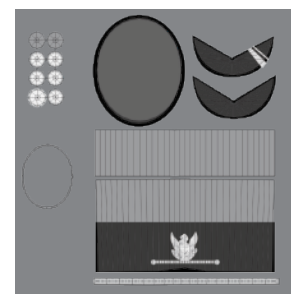


Each hat can also be textured.

Hat textures vary for each hat.

Use the mapping layout corresponding to the hat from the texture sample data. layout for that hat.

Sample data may be freely modified for use within Drill Studio only.



### Battery Color

The battery body (shell) can be set to a color and texture. If a texture is set, the color must be set to white to get the original color. Shell texture is a pattern only, and the pattern may be shifted if there is a connection of surfaces such as letters.

Only for bass drums, the head texture and color can be set.



### Flag Texture

Flags can also be textured.

By using transparency, the shape of the fabric can be changed.

The default flag is shown on the right, with a white and pink texture set and the color set to yellow, resulting in a yellow-orange flag.

As you can see, by using the texture in conjunction with the color well, it is easy to change the color.





## 28 Exporting movie and printing

### Exporting Movie

You can export the created storyboard as a movie by clicking on [ File ] > [ Export Movie ].

The exported video will be within the red frame shown. The red frame is automatically adjusted to 16:9 aspect ratio. Everything displayed in the frame will be recorded.

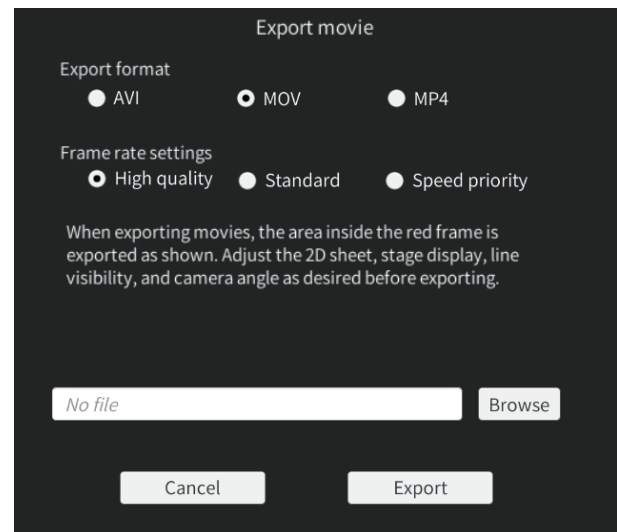
If you are in sheet view, you can save the sheet view as a movie. Zoom, rotation, orbit lines, etc. will be recorded as they are displayed.

Video export is available in AVI, MOV, and mp4 formats.

The frame rate can be set in the picture quality settings. The frame rate is about 30fps in high quality. Output in high quality requires several times the total video time.

AVI is uncompressed MOV is compressed by MPEG4. We recommend exporting in AVI for Windows and MOV for Mac. Utilize MP4 only for tablets.

Export speed and image quality are greatly affected by the operating environment, including the presence or absence of codecs. Since the exported video is uncompressed data, the data size will be large. When distributing via e-mail, etc., please upload the video to a video site or use video editing software to compress the data before distribution.



### Print settings and PDF export

Click [ File ] > [ Print ] > [ Drill Sheet ] to open the print settings window.

If you check "Print sub-sheets", all sheets including sub-sheets will be printed.

If you check "Print in B&W", the Performer's mark will be printed in B&W. If you check "Print in color", the Performer's mark will be printed in color.

This will prevent light colors from becoming light gray when printed in B&W. Logos, lines, etc. will remain in color.

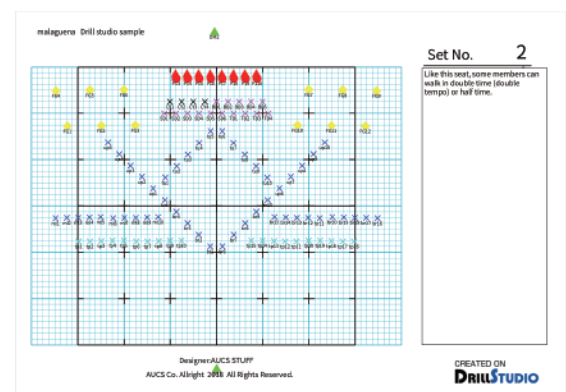
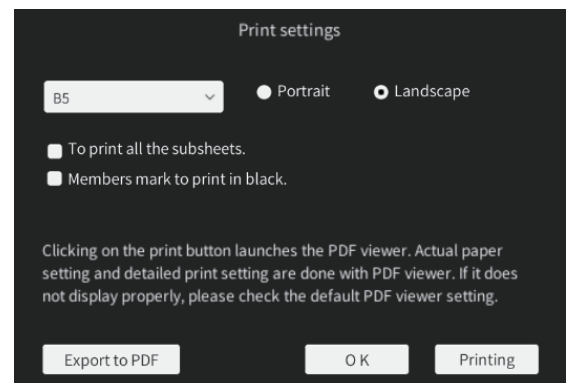
Click [ Export PDF ] to save the file as a PDF file.

(Clicking the Print button creates a PDF file as a temporary file and opens the default PDF viewer.

In Drill Studio, the detailed settings for printing depend on the PDF viewer in order to achieve multi-platform and stable operation regardless of the environment.

Some viewers may not start automatically.

In such cases, please export to PDF once and then print.



## Print out the coordination sheet (personal sheet)

Click [ File ] > [ Print ] > [ Coordinate Sheet ] to print a personalized sheet.

Check the items you wish to add to the list and click [ Print ] to display the sheet as shown below.

Coordinate sheet

☐ Print all members  
☐ Print selected members

☒ SET No. ☒ Stride ☒ Horn  
☒ Measure ☒ Position ☒ Pose  
☒ Counts ☒ Step Time ☒ Motion  
☒ Direction ☒ Turn

If you check all the items, the characters may protrude in a set with many settings. Pick up the items to print according to the settings.

malaguena Drill studio sample

page 1/2

X  
tp1

#Set	Measures	Counts	Direction	Stride	Left-Right	Front-Back	notes
0	0	0	•	0	[R10]	[F10]4	[Turn] L_180(0)
1	0	0	•	0	[R10]	[F10]4	
2	1	4	↘	2.4	0.2(R15)	[F5]1.9	[Step] Double time [Turn] L_180(2-4) [Horn] up(3-4)
3	2-3	8	↑	1	[R15]	[F10]2	
4	4-5	8	↘	1.3	[R15]4.5	[F5]1.1	[Hold]
5	6	4	•	0	[R15]4.5	[F5]1.1	[Hold]
6	7-10	16	↘	0.6	3.0(R15)	[F00]	
7	11-12	8	•	0	3.0(R15)	[F00]	[Hold] [Horn] Bell up(5-1)
7-3	13(3-2)	2	↘	0.9	[R10]3	[F00]1.4	
7-2	13(3-4)	2	↘	0.9	[R10]1.9	[F00]2.9	
7-3	14(3-2)	2	↘	0.9	[R10]0.9	3.7(R5)	
7-4	14(3-4)	2	↘	0.9	[R10]0	2.2(R5)	
7-5	15(3-2)	2	↘	0.9	0.8(R10)	0.7(R5)	
8	13-14(2)	4	↘	0.6	2.4(R10)	[R0]1	
9	16(18-17)	10	↑	1.4	4(R15)	[F0]4	[Hold]
10	19-21	12	↘	1.1	[R5]11	[F00]3	[Pose]
11	22-23	8	↑	0	[R5]11	[F00]3	[Hold] [Pose]
12	24	2	↑	0	[R5]11	[F00]3	[Pose]
13	25-28	16	↘	1	[R15]0.2	1.4(R5)	[Pose]
13-1	29(3-2)	2	↘	1.1	[R15]1.9	3.1(R5)	
13-2	29(3-4)	2	↘	1.1	[R15]1.4	[F00]1.3	
13-3	30(3-2)	2	↘	1.1	[R15]4.8	[F00]1.6	

[ Left-Right ] [ Front-Back ] indicates the distance and direction from the point.

Point names can be changed, modified, or added using the Point Maker in the Line Tools.

(Previous versions of the data do not have point names assigned, so they must be reassigned.)

Measures will not display properly unless measure settings have been made for the count.

#Set	Measures	Counts	Direction	Stride	Left-Right	Front-Back	notes
1	1(2-4)	8	↓	0.5	[R5]	1[F00]	[Turn] L_180(1-3) [Horn] Down(1-2)

In this case, Set 1 moves 8 steps with a stride of half step (stride of 1 is 62.5) in the direction of ↓ with a movement of 8 counts in measure numbers 1-2.

The destination points are,

[R5] . . . . above the point 5 meters to the right of the center line

1[F00] . . . point 1 step before the center [F00].

Turn 180 degrees around left in beats 1-3, then down the horn in beats 1-2.

The notation for points is.

"Steps to the left [ name of left/right point ] Steps to the right"

"number of steps forward [ name of point forward/backward ] number of steps backward."

This is the rule. Example

4[R15] . . . . From a point 15 meters to the right of the center line, 4 steps to the left

[F10]2 . . . . 2 steps back from a point 10 meters in front of the center line

[B5] . . . . on a point 5 meters behind the center line

## How to use Point Maker

When the Line tool is selected and in full sheet mode, a button appears.

Click **P** button to display the point.

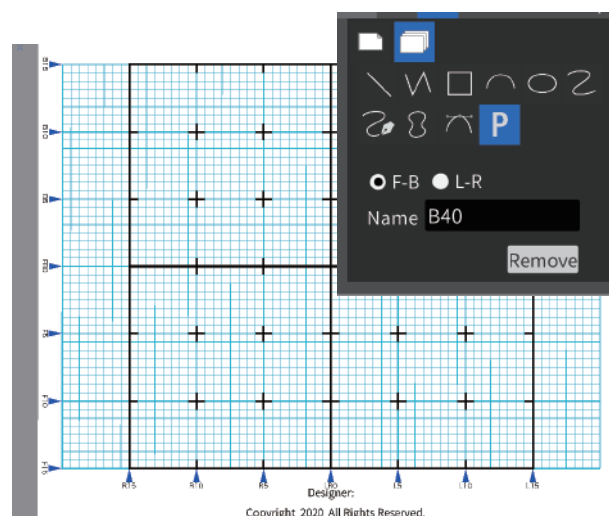
For the setting items, check F-B if the point represents the front/back, and check L-R if the point represents the left/right.

In the case of a forward/backward point, the left/right can be at any position.

In the case of left/right, similarly, the front/rear position is free, so set it at a location that is easy to find.

These point settings will be used when printing the coordination sheet.

If you set too long names, the letters may overlap.



Copyright 2020 All Rights Reserved.



## 29 Upload to DSM server

### Upload to DSM server

By uploading the created drill data to the dedicated server, the data can be read by the smartphone or tablet version of the DrillStudioViewer app.

When a file is uploaded to the server, a QR code is issued.

By simply reading the QR code from the smartphone app, the file can be downloaded and easily shared with other members.

You can also share files by sending the download code via email.

The server is a dedicated server provided by our company, and uploaded data is stored for one year.

Files that have been uploaded for more than one year will be deleted.

Please be sure to keep a backup of your uploaded files, as there is no guarantee against data corruption due to server trouble.

To use the DSM server, you must create and activate a Drill Studio Account.

You can create or edit your Drill Studio Account by accessing your account page from [ Help ] > [ Manage Account ].

File name	Code (password)	QR	Date	DL
marage	j7aud4r3d8p1e2_marage	[QR]	2023-04-10 03:54:03	[DL]
manlist	mfdasyd5h45ie_manlist	[QR]	2023-04-11 05:47:46	[DL]
objtest	9pdx30gsmiklag_objtest	[QR]	2023-04-12 10:54:44	[DL]
uploadtest	ppeyw74apben53x_upload	[QR]	2023-04-12 09:27:33	[DL]
hikaru333	cemgetxd1dic7j_hikaru333	[QR]	2023-04-18 09:20:02	[DL]



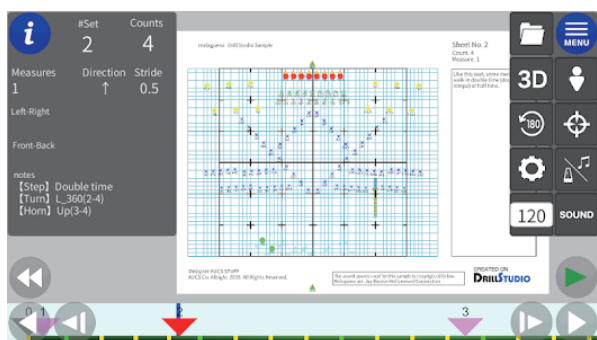
### Drill Studio Viewer

Drill Studio Viewer is a mobile application that allows you to view Drill Studio files on your smartphone or tablet.

It can be downloaded from app distribution sites (Google Play and App Store).

The app is useful for understanding detailed individual movements, image training, and daily practice, as it allows you to check contests in real time and faithfully reproduces the contests created in Drill Studio.

Files uploaded to the DSM server can be easily downloaded to the app via QR code.



## Useful Features

### Copy & Paste [ Edit ] > [ Copy / Paste ]

You can record the position of performers in the order of their selection and reflect it on another sheet. You can copy and paste text boxes, lines, etc. (they will be pasted in the same position)

### Undo & Redo [Edit] > [ Undo / Redo ]

You can undo a work you have done. Note that there are some operations that cannot be undone.

### Swapping Performer Positions [ Performer ] > [ Subsequent position swap ]

You can undo a work you have done. Note that there are some operations that cannot be undone.

### Reversing the selection order [ spacebar ].

You can reverse the selection order of performers.

## Shortcut key list

The shortcut key is set by the Command ( ) key on the Mac and the Control (Ctrl) key on Windows.

Control + Z	Undo (Note that some operations cannot be undone.)
Control + Y	Redo (Ctrl+z will redo the undone operation.)
Control + C	Copy performer points, lines, text, etc.
Control + V	Paste performer point, line, text, etc. (Lines, text boxes, images are pasted in the same position as they were copied)
Control + A	Select all Performers
Control + S	Save (Overwrite)
Space bar	Reverse selection order (useful when using the draw tool) Play and stop when no Performer is selected
TAB key	Press and drag for the same effect as the Hand tool
← ↑ ↓ →	Move the Performer or object when it is selected. Hold down the [Shift] key and press the arrow keys to move one step at a time. When a count is selected, you can use the left and right arrows to fine-tune its position. If nothing is selected and the mouse cursor is in a sub-area, the left and right arrows will move the timeline.

### On / Off command (don't use modifier keys)

### When using the Object Tool

[Q] Show from previous point	[S] Snap	[W] Move
[W] Show to next point	[I] Interval	[E] Scale
[E] Show area guide	[H] halt (Hold)	[R] Rotate
[M] Model show	[1] Rectangle selection	
[L] Label show	[2] Lasso selection	
[B] Display in black	[3] Drag selection	
[Y] Show sequential arrows	[4] Standard selection	
[X] Show gridlines	[5] Exclude selection	
[G] Show performer mark	[6] Add selection	
[A] Auto order		

## Trademark Description

Microsoft and Windows are registered trademarks of Microsoft Corporation

in the United States and other countries.

Macintosh, Mac, MacOS, iPad, and AppStore are registered trademarks of

Apple Inc. Android and Google Play are registered trademarks of Google LLC.

Adobe, PDF, Acrobat PDF are trademarks or registered trademarks of Adobe Systems.inc.

in certain regions. All other service and product names are trademarks or

registered trademarks of their respective companies.

