PreSonus®

NOTION
MOBILE

用户手册

V3.3

Table of Contents 目录内容

简介

感谢您下载 Notion™ Mobile，欢迎使用 Notion Mobile 3.3 用户指南。要查看本指南的 PDF 文档，请从此处下载：**https://presonus.com/products/Notion-Mobile/downloads**

在 iOS App Store 超过 10 年的 Notion iOS，现在已经成为 Notion Mobile —添加新平台、新设备和新机会。现在可以在任何设备上，进行创作，包括运行 iOS(iPhone 和 iPad)、Android(手机、平板电脑和 Chromebooks)、Windows(平板电脑、Surface、电脑) 和 macOS 的设备 Notion Mobile 可从主要应用商店下载：Google Play 商店、Apple iOS 和 macOS 应用商店、Amazon App Store、Samsung Galaxy Store 和 Microsoft Store。

Notion Mobile 与 Notion iOS 和 Notion Desktop(macOS、Windows) 中创建的 Notion 文件完全兼容。借助新的网络传输功能(可选功能包的一部分)，Notion 还可以在运行 Notion Mobile、Notion 6 桌面或 Studio One 6 的同一网络上的任何设备(无论平台如何) 之间直接传输乐谱。

快速入门

看看这个系列 **快速入门教程** 在YouTube上。
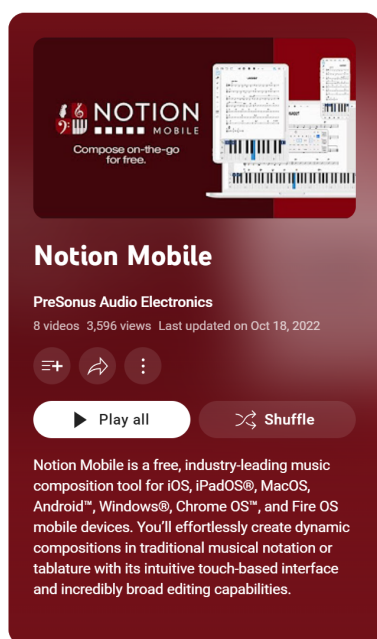
1		**Notion® Mobile: FREE on-the-go music creation and notation application** PreSonus Audio Electronics · 5.3K views · 3 months ago
2		**Introducing Notion Mobile** PreSonus Audio Electronics · 6.3K views · 3 months ago
3		**Notion Mobile New Features Overview** PreSonus Audio Electronics · 7.5K views · 3 months ago
4		**Notion Mobile Quick Start Lesson 1: Getting the App** PreSonus Audio Electronics · 2.5K views · 3 months ago
5		**Notion Mobile Quick Start Lesson 2: Score Setup and Note Entry** PreSonus Audio Electronics · 4.6K views · 3 months ago
6		**Notion Mobile Quick Start Lesson 3: Playback** PreSonus Audio Electronics · 1.9K views · 3 months ago

做更多...

可以通过任何平台购买功能包，或直接用你的Studio One+会员资格登录，来解锁Notion Mobile的更多功能和声音集。

Notion 6 Desktop 是我们的王牌产品，拥有更多的记谱功能、布局控制、第三方VST乐器和效果支持、现场表演模式、视频窗口、音序器、乐谱库、更广泛的声音库等。它可用于macOS和Windows，或作为Studio One+会员的一部分。

- **在这里了解更多关于 Notion Desktop 的信息。**

什么是工作室一号+?

Studio One+ 是作曲家的终极工具包，包括 Studio One Professional、我们的旗舰 DAW(数字音频工作站)、适用于 macOS 和 Windows 的 Notion Desktop、大量附加声音和内容、社区协作功能、独家培训视频等。

- 在此了解有关Studio One+的更多信息。

PreSonus 致力于不断的改进产品，我们高度重视你的建议。我们相信，实现我们不断完善目标的最好方法是听取你们的意见：我们宝贵的客户。我感谢你通过购买本软件对我们的支持。

安装和激活

从 App Store 安装 Notion Mobile

在你的设备上获得 Notion Mobile，根据以下链接或登录你的设备里的各个应用商店。

- iOS 设备 : **Apple App Store**
- macOS 设备 : **Apple Mac App Store**
- Windows 设备 : **Microsoft Store**
- Android 设备 : **Google Play** 商店或 Samsung Galaxy 商店
- 亚马逊设备 : **Amazon App Store**

打开你设备的应用商店，请搜索 "Notion Music"。

在搜索结果中，找到 Notion Mobile 应用程序(以及其独特的图标)，点击 "Get" 获得或 "Install" 安装。

为了节省你的设备空间，最初的应用程序只下载Steinway钢琴的声音 — 其余的声音，可以按你的意愿添加/删除(见下文 : Installing Sounds) 。
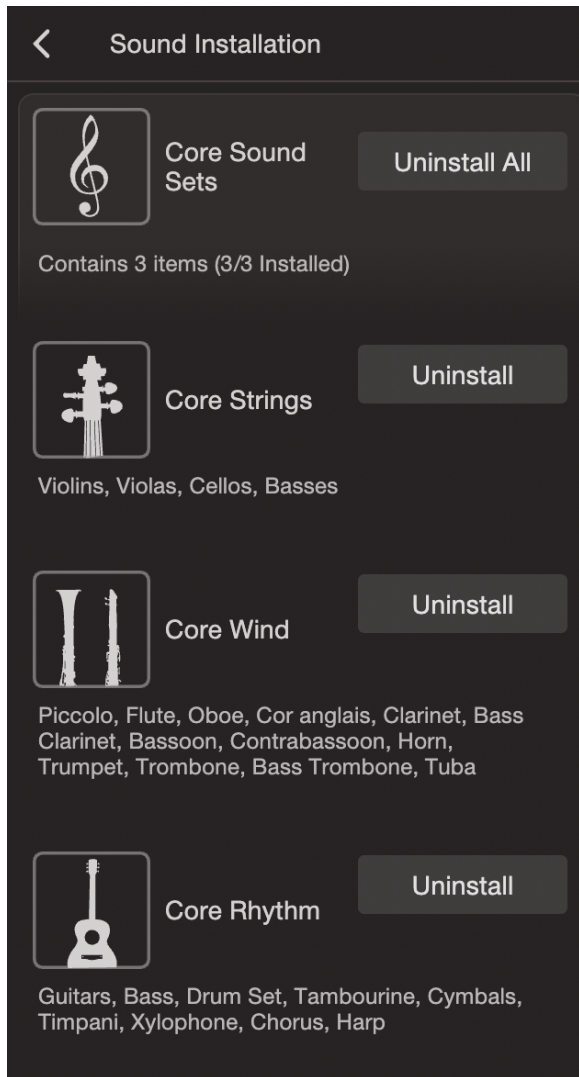
更新情况

更新 Notion Mobile，是通过你的各个应用程序商店使用的 —— 来到账户或在应用商店内重新搜索 Notion Mobile，下载更新。或设置你的应用程序，以便有更新时可以自动更新——通常这个设置可以在你的应用程序商店中找到。

欢迎页面
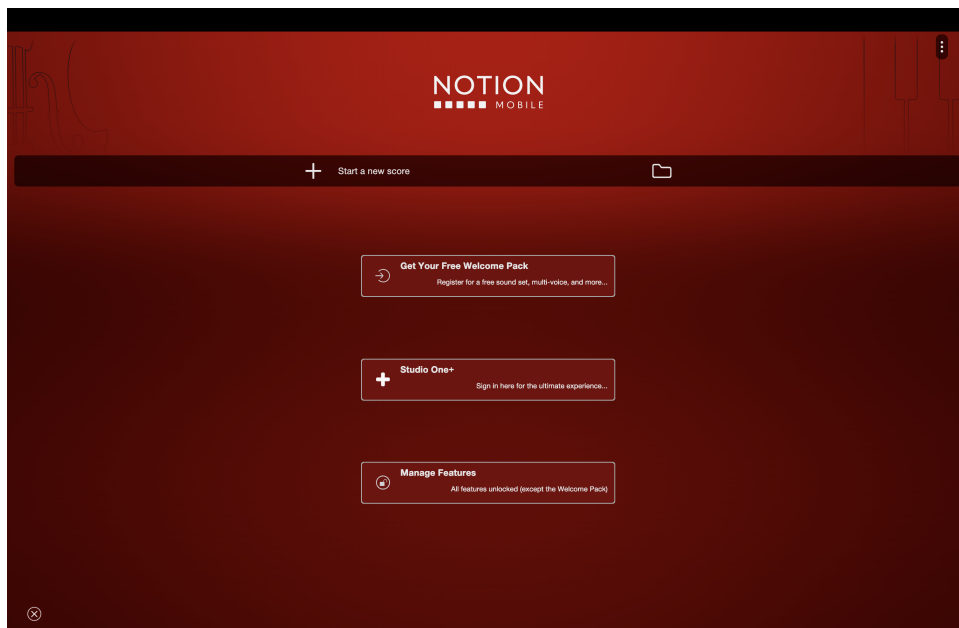
首次打开时，Notion Mobile 将显示欢迎页面。从这里，您可以通过点击加号按钮快速创建您的第一个乐谱或尝试其中包含的演示乐谱。或者，您可以花一点时间通过购买应用内购买或使用 Studio One+ 会员身份登录来解锁 Notion Mobile 的所有可选功能和声音。

安装音效

Notion Mobile 捆绑了一套专门录制样本的乐器—安装它们，访问 "Application Menu" 应用程序菜单 >"Sound Installation" 音效安装。你可以安装可用的Core声音，或只安装你想要的独特的Core Soundsets声音集。你也可以从你的Score Setup 乐谱设置菜单中安装 Soundsets 声音集—只需点击下载图标。如果你想释放设备上的空间，也可以从这个菜单中删除Soundsets声音集。

要解锁扩展声音，您可以通过提供的链接进行单次应用内购买，或使用 Studio One+ 会员身份登录。(见下文)

Notion在my.presonus.com上一旦注册，可获得作为奖励的 Welcome Pack 欢迎礼包的声音集——Notion注册是不收取费用的。(见下文)

欢迎礼包

要想获得欢迎礼包(其中包括一个独特的声音集，多声道输入，以及对Notion论坛的访问，需要在PreSonus注册你的应用程序——没有任何收费。

点击 Welcome Page 欢迎页面上的按钮，或进入 Application Menu 应用菜单> Account 账户 >Register 注册。然后用你My.PreSonus 账户登录，如果你还没有账户，点击链接可以创建一个免费账户。

用Studio One+解锁 / In-app purchase购买

要解锁可选功能和内容，您需要在使用 Notion 的每个平台(例如 Android、Windows、macOS、iOS)上进行应用内购买，或者使用Studio One+ 会员身份登录。

购买内容包括：手写识别、布局控件、用于设备间共享乐谱的网络传输、所有扩展音集以及未来即将推出的令人兴奋的新功能！

我可以移除/删除我的presonus账户吗？

是的。您可以下载所有数据并永久删除您的 my.presonus 帐户。请记住，这将删除您的帐户，并且任何硬件或软件注册的产品密钥都将被不可挽回地删除。**完整说明请参见此处。**

回复购买

如果你已经进行了可选的**in-app**购买，但你没能看到你之前解锁的功能或声音集，你可能需要刷新应用程序的购买状态。

- 首先，确保登录的设备使用的是你的同一个购买账户(这是发生问题的首要原因！)

- 接下来，确保你目前使用的平台进行过购买—请注意，in-app的购买是按平台进行的(也就是说，在安卓系统上，进行的in-app购买不会延续到苹果iOS系统上。)

- 最后，只需点击 "Restore Purchase" 恢复购买，从：Application Menu 应用程序菜单 >> Manage Features 管理功能

选择自己的语言

Notion 的显示语言通常是你设备所设置的语言。你或许可以在应用程序上这一点，这取决于平台的情况。进入 Application Menu 应用菜单>>Language 语言来进行。

要通过单击加号按钮开始新乐谱，**点击这里**.

启动页面

Notion Mobile 的 "Start Page"，让你快速访问最近你打开的文件夹。你可以从"Recents List"中删除文件，也可以永久删除它们--点击 "Edit" 编辑按钮，并做出选择，以移除或删除。

根据平台的不同，你也可以右击filename文件名，接着从Recents List中选择删除，或者打开文件的位置。

要在你的Recents List中找到一个文件，点击Search图标，然后开始输入，直到找到一个匹配的文件。

打开一个现有的Notion文件或导入一个MIDI或MusicXML或MXL文件，点击File Browser按钮。这将打开你的系统浏览器，你可以导航到你想要的文件的位置。Notion将打开或导入文件，然后在原位置或原地保存任何修改--它不会将文件移到另一个位置。

在 "Start Page"页面右上方的Application Menu应用程序菜单中，你可以访问Notion的Global选项。这些选项包括：

- **音频设置选项，**包括可能的采样率和音频设备选择。请访问播放章节以了解有关设置您的 **音频设备**.
- **外观选项，**包括深色/浅色、图标大小、palette 大小和侧面。Layout Setup 设置。参观 **Layout Setup** 章以了解更多信息。
- **编辑选项，**包括采用支持的触控笔时的自动模式切换，以及输入试听音符。参观 **Selecting and Entering Notes** 章以了解更多信息。
- **网络选项，**Notion和Studio One文件可以通过网络接收发送的Audio options音频选项，包括采样率、音频参观 **Export and Print Scores** 章以了解更多信息。
- **声音安装，**让你控制想下载或删除的Core声音集，以及下载可选的Expansion 声音集。参观 **Installation and Activation** 章以了解更多信息。
- **管理功能，**可在PreSonus注册以获得欢迎礼包，以及用Studio One+会员资格登录，来解锁所有功能和参观 **Installation and Activation** 章以了解更多信息。
- **语言，**改变应用程序的语言
- 在**"About"** 屏幕上会显示你当前的版本号。
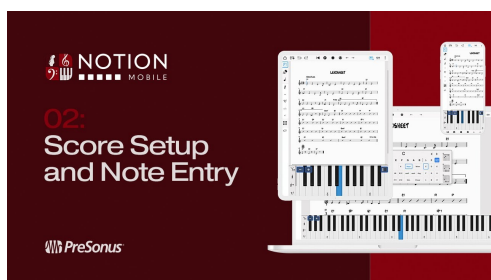
乐谱设置
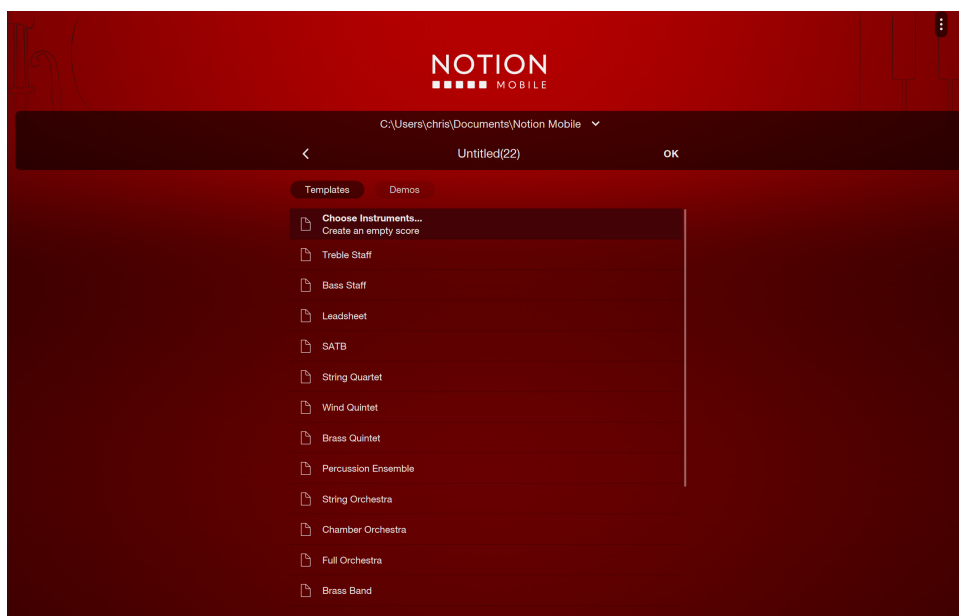
穿件一个新的乐谱

要创建一个新的乐谱，点击 "Start Page"页上的 "加号"(+) 图标。

然后会提示你录入一个文件名：

- 你不需要在这里录入任何东西，你可以直接使用 "Untitled"。
- 初始设置的filename文件名，也将作为Title显示在乐谱中。
- 如果需要Title独立编辑，可以双击。
- 改变Title不会改变filename文件名(反之亦然，如果后来你改变了文件名，这也不会影响Title) 。

在文件名的上方，是新文件将被保存的位置。获得更多的选项，可以点击向下的箭头。

- **选择...** 打开设备文件浏览器。接着可以浏览你想保存文件的位置。取决于平台的情况，并不是所有的云端位置都可以用于新的乐
- **Select Default** 选择你平台默认的Notion乐谱的位置

Choose Instruments...是默认的— 一旦你点击OK，将打开乐器选择器。然而，你可以选择使用一个模板乐谱...

使用一个乐谱模板

- 在输入文件名后，如果屏幕上的键盘仍在显示，则隐藏它(如果适用)，以查看整个Template模板列表。
- 选择你要的模板
- 点右上方的 "OK" 确定。
- 你也可以添加你自己的模板到列表中 — 导出和输出乐谱

打开一个Demo Score

一旦你点了 "Start Page"上的 "加号"(+)图标，就能看到 "Demos"选项卡，旁边还有 "Templates"。

点击可显示包含的演示乐谱列表 - 选择一个打开并开始播放。如果您对演示乐谱进行更改，这将自动在您的默认保存文件夹中创建一个副本，并添加到起始页上的"最近使用的列表"中。(原演示分数未改变)
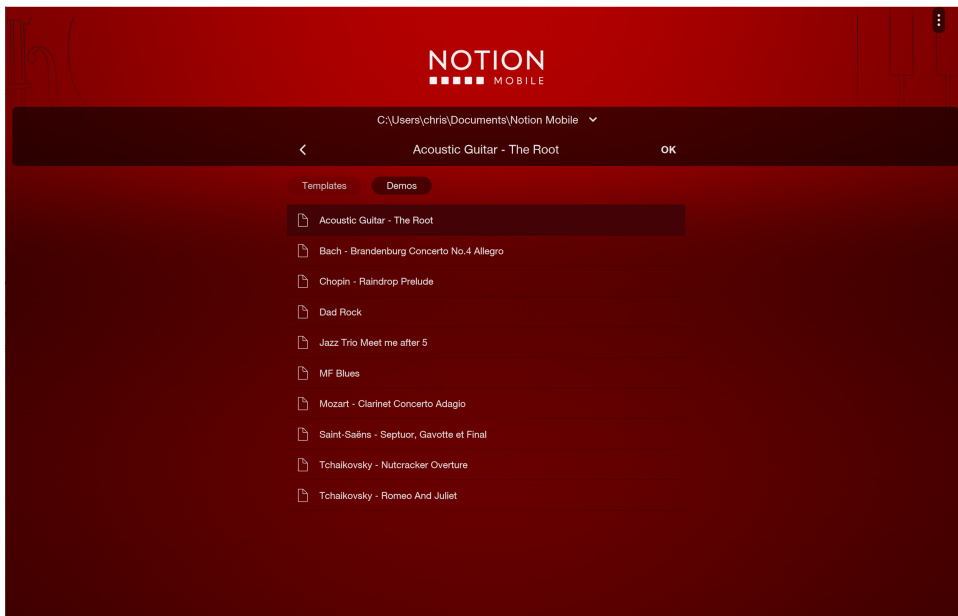
添加乐器
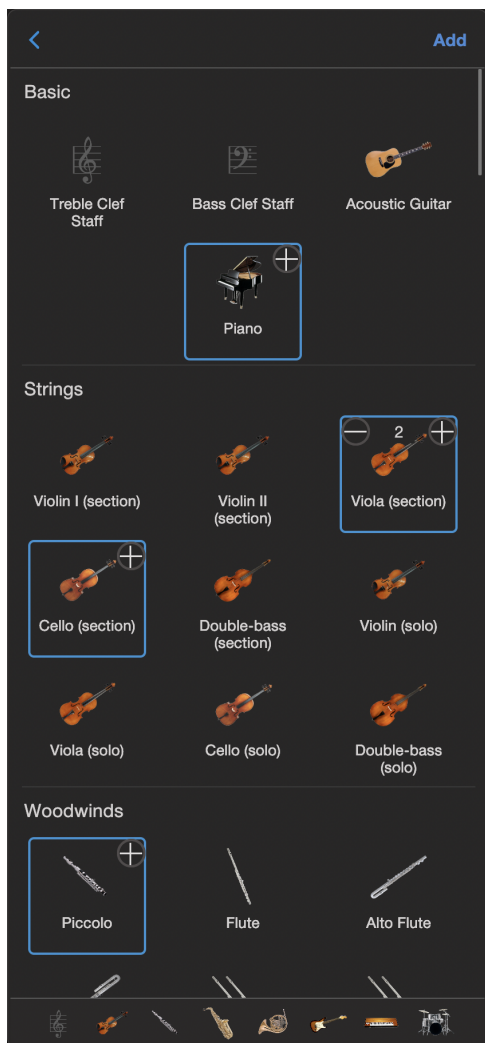
你一旦点击"OK"并选择了 **"Choose Instruments"**，乐谱将打开，并且乐器选择器将会自动打开

- 向上或向下滚动这个乐器列表。你也可以使用这个选取器底部固定的一排乐器家族的快捷图标，来跳到正确的地方。
- 点选一个乐器--再点一次，来取消选定
- 要选择每种乐器中的一个以上，请点击乐器角落里的加号图标。
- 当你完成后，点击右上角的 **"Add"** 。

选定的乐器将添加到乐谱中。现在可以看到Score Setup窗口——这里你可以改变各方面的乐器，还有顺序(见下文)，但如果一切看起来都不错，就点右上角的 **"OK"** ，或者点离开该窗口来取消它。

添加和编辑乐器
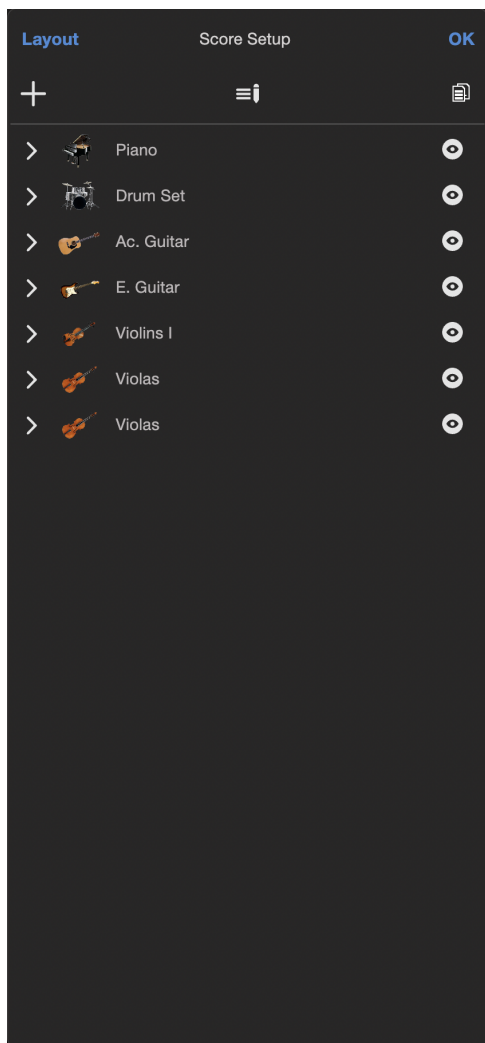
在 "Score Setup"窗口中，如果你想添加更多的乐器，点击 "**+**"(加号) 图标 - 这将再次打开乐器选择器。

点 **"Edit"** 图标删除乐器—点乐器进行选择，然后点 **Delete**。改变乐谱顺序，使用右边的三条线图标，抓取并拖动乐器到你所需要的改变乐谱顺序，使用右边的三条线图标，抓取并拖动乐器到你所需要的

在 Score Setup的右侧，有一个 **Score乐谱/Part** 乐段的切换键—你可以切换查看全谱或个别部分。当查看一个部分时，使用每个乐器旁边的 **eye** 图标，来改变当前查看的部分。当查看Full Score全谱时，**eye** 图标用来显示/隐藏全谱中的各个部分。

你选择的乐器，如果你没有安装音效样本包，会出现一个圆形的蓝色Download图标——点选下载包含的Soundset。注意，你不需要使用音效下载/购买，就能为该乐器写作，因为如果没有，Notion将默认为钢琴声。

乐器设置

在 "Score Setup" 窗口中，点击你选择乐器左边的箭头，可以看到更多的设置选项。它们包括：

- **乐器** - 点击，就可以改变乐器五线谱
- **名称** - 更改乐器的全称
- **简称** - 改变简写的名称
- **五线谱类型** - 选择为乐器显示哪种类型
    - **标准** - 单独的5线谱
    - **表谱** - 每根乐器弦都有一行，用数字代替音符头的吉他谱
    - **标准+六线谱** - 两条相连的横线，你同时看到一个乐器的标准和乐器的乐谱记谱法

- 大五线谱 - 两根相连的五线谱，代表左手和右手
  - 鼓谱 - 带有打击乐谱的五线谱
  - 单线谱 - 单线谱
- 选项卡选项 (只有在选择了上面的表谱选项后，才会显示)。
  - 选项类型 - 从乐器预设和调音的选项中选择
  - 弦乐选项 - 显示乐器的调音，但可以为自定义的调音进行overtyped
  - 六线谱中循环 - 可选择在全音符或半音符周围显示一个循环
  - 在TAB六线谱中显示音干 - 可选择隐藏表谱音符的韵律干线
- 声干模式 - 如果一个乐谱中有多个声部，你可以决定如何处理这些声部。
  - 分开上/下 - 每一个高声部音符的默认处理方法是指向上方，每一个低声部音符指向下方。
  - 连接音干 - 只要两个声部有相同的节奏，就用相同方向的音干连接两个音。在有节奏差异的地方，回到默认的 Up/Down 上下分开处理。
  - 每项措施都是独立的 将把声音当作一个连接的干选项，但在一个小节的任何地方出现异常，那么，整个小节就被当作"Separate Up/Down"上下分离。
- 显示调号 这将隐藏每个系统开始时的调号，并在必要时自动将记号添加到音符中。这最常用于圆号。
- 换位(仅在选择音调乐器时显示) - 当您从乐谱设置中选择移调乐器时，Notion 会自动为您进行设置。在演奏一个记号性的C时，你也可以手动选择，应该在哪个八度内发出什么音。例如，一个F调的法国号在演奏一个记号的C调，会在同一个八度的低音上吹出F。一个降B调的萨克斯手，在演奏记谱的C时，声音会比降B调低一个八度。
- 显示乐器键 (只有在选择了有音调的乐器时才会显示) 将显示/隐藏所显示的乐器的键，例如：*降B调* 单簧管 / *降B调* Cl.1。

版面设置

查看选项

你在 Notion Mobile 中，可以在三种不同的视图之间切换作曲。点击屏幕左上方的 **"Score Setup"**，然后是 **" Lay- out "**。然后选择三个视图中的一个，以及是否查看乐谱或部分-- 这将立即改变背景中乐谱的视图。

- **屏幕视图** [F8]- 系统向上/向下滚动的无边界视图
- **打印视图** [F7]- **可根据**你所设定的页面大小，看到打印出来的页面轮廓。重复按键盘快捷键 [F7]，将在打印视图与水平方向上的页面和垂直方向上的页面之间进行切换。重复按键盘快捷键 [F7]，将在打印视图与水平方向上的页面和垂直方向上的页面**之间进行**切换。
- **连续视图** [F6]- 从左到右滚**动播放一**个用弧线连为一体的谱表
- **全屏/ 单独的部分视图** [F5] - 全谱或单个部分之间进行切换。

下面有各种显示选项。这些选项将适用于当前选定的任何视图-- 并非所有的选项都适用于所有的视图，这些都将在适当的时候变灰。

首先点击你想调整的视图(屏幕/打印/连续/全谱或部分)，然后选项会适当地更新：

- **查看选项**
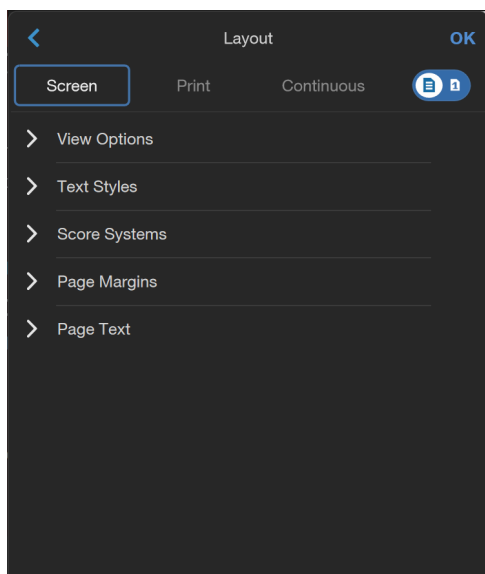
- **Notation Zoom** - 改变屏幕视图中的显示大小
- **Notation Font** - notation 标准字体和爵士字体之间切换
- **Notation Size -**调整 notation font 字体的大小
- **Paper Format** - 改变纸张尺寸或添加自定义尺寸(厘米)
- **Orientation -**在纵向或横向方向之间切换
- **Transpose Mode** - 在转调后的乐器之间进行切换，在音乐会的调音中查看乐器(C调乐谱，八度转调乐器按其书面八度显示) 或音乐会音高(C调乐谱，转调乐器以其发声八度显示) 之间切换。
- **Print Cue Notes -**选择 physically printing 时，显示或隐藏提示音
- **Chord Summary -**如果你的乐谱中有和弦，可以选择自动显示所有和弦的摘要，在第一页的底部
- **Hide Cuts -**将折叠任何标记的切口，使它们被隐藏起来，为发布做好准备。
- **Reveal Hidden Items -**将显示之前被隐藏的乐谱元素(如动态)。
- **Multi-measure rests** (Parts view only) -这将把一个部分中的多个小节的休止符整理成一个多小节的休止符。在整理之前，选择要显示的单独记录休止符的最小量。
- **Show Out of Range Notes -**将指定的乐器超范围的音符变成红色。音符仍将为黑色。

- **Show Voice Colors** - 四个声音用不同的颜色显示，以便于识别
    - Voice 声部1的记号仍为标准的黑色。
    - Voice 2 notation 显示为紫色
    - Voice 声部3的记号以浅紫红色显示。
    - Voice声部4的记号显示为绿色。
- **Text Styles** -这将改变歌词文本的外观。选择字体、样式和大小。
    - **歌词**- 这将改变歌词文本的整体外观。选择字体、样式和大小。选择字体、样式和大小。单独的歌词仍然可以被赋予自定义的风格-- 右击单词并选择Context Menu>Text
    - **文本**- 这将改变歌词的外观。选择字体、样式和大小。单个文本框仍然可以被赋予自定义样式-- 右击单词并选择Context Menu>Text。
- **乐谱系统**
    - **Titles First System** - 选择是否在第一个系统上显示乐器的全名，或名称缩写或根本不显示。
    - **Titles Following System** -选择是否从第二个系统开始，显示乐器的全名，或名称缩写，或根本不显示。
    - **Staff Spacing** - 调整五线谱之间的垂直间距
    - **System Spacing** - 调整系统之间的垂直间距
    - **Break marks** - 选择隐藏或显示可选系统的节奏断点标记符号(两条对角线位于各系统之间)
    - **Measure Limit** - 调整在每个系统上显示记录量。请注意，如果有太多的音符无法容纳，可能会显示较少的记录-如果这是个问题，请按上述方法调整记号字体大小。
    - **Measure Numbers** - 选择是按系统、按小节显示，还是不显示。要对小节重新编号，只需双击小节编号，然后输入你想继续编号的数字。如果遇到之前重新编号的小节，Notion 会调整所有后续编号并停止。
- **Page Margins** - 调整页边距(以英寸为单位)。
- **Page Text** - 你可以添加和编辑特殊文本项目的样式，如标题、版权、副标题、作曲家等，也可以添加新的文本元素。要添加换行符，请使用 Enter 或 Shift+Enter(取决于平台)。
    - **添加页面文本**
        - **字体**
        - **文本**
        - **安排**
        - **在Pages显示**
        - **字体**
        - **字体风格**
        - **字体大小**
    - 移除一个页面文本输入，请点击它，然后点击 **Remove Selected** 删除选择。

布局控件

更多布局功能可作为可选功能包的一部分，通过应用内购买或有效的 Studio One+ 会员资格获得。

显示布局手柄

该工具可在乐谱设置 > 布局 > 视图选项中找到，或在 macOS 和 iOS 上使用键盘快捷键 Cmd+Shift+L，或在其他平台上使用 Ctrl+Shift+L。

启用后，方格(或拖动手柄)就会出现——这些手柄允许垂直拖动谱表和系统，水平拖动小节线。

请注意，这些手柄仅在打印视图中可见。
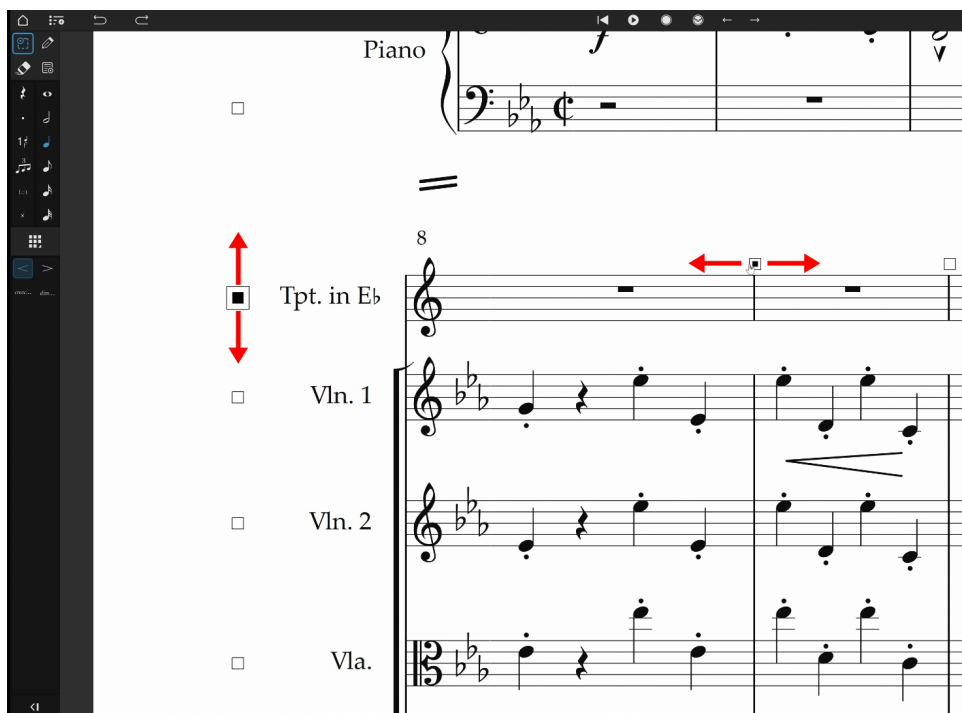
如果拖动了手柄，则方格会被填满，以显示已进行了手动调整。总谱和各声部之间以及各声部之间的布局是独立的。

重置间距

只需选择布局手柄方格，然后点击删除或橡皮擦图标即可。

Hairpin 角度

"布局工具"启用后，你还可以更改 hairpin 的开口角度（声音渐强或渐弱）或它的整体角度。这可以在打印视图和屏幕视图中完成。
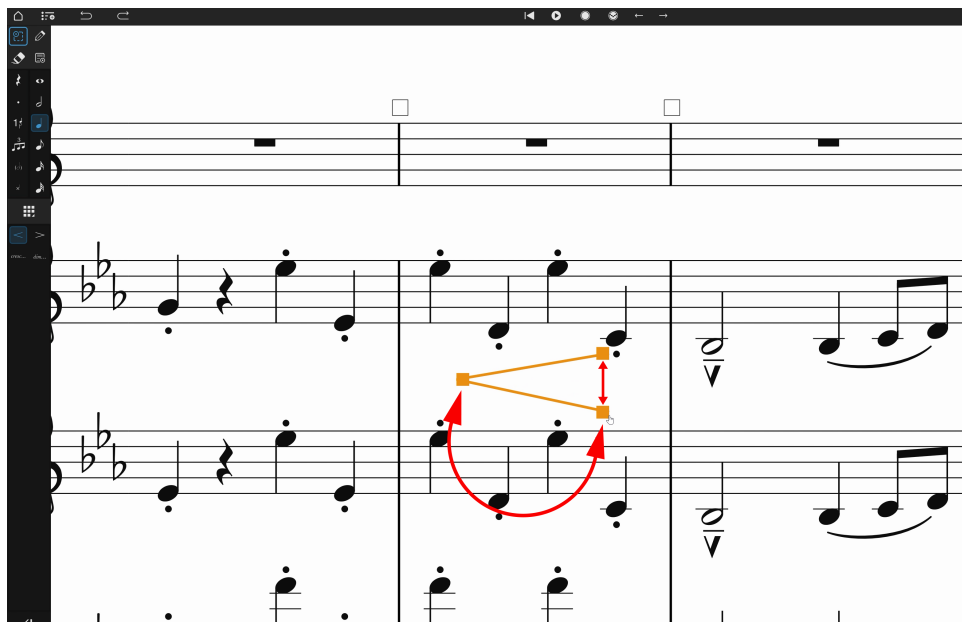
自定义视图

除了在Layout Setup中看到的notation layout选项外版面设置，Notion Mobile还有几个的Appearance Options选项，按照你的喜好和工作流程来定制应用程序。

点击 **Application Menu**（右侧的三个点的菜单图标），选择Options。

在这里你将看到以下选项：

- **Light Color Scheme** 应用程序的默认布局是深色模式，但你可以选择在菜单栏、选项板、对话框和菜单使用浅色。
- **Dark Score** 这颠倒实际配乐区域的颜色，在深色背景上给出浅色音符-在弱光环境下，可最大限度地减少屏幕眩光
- **Right Side Tools** 你可以选择把垂直的"Tools"选项板放到屏幕的右侧，而不是左侧。
- **Small UI** 这减少了选项板和运输工具中的图标的大小，无论屏幕大小如何，都能为你的配乐提供更多的空间。

Extended Palette视图

点击调色板底部的图标可更改可见列的数量。如果屏幕上有空间，您可以看到两列。请注意，他的视图包含一个永久的"手写工具"图标，因此如果您没有自动切换的手写笔（例如Apple Pencil或Surface Pen），您可以在此处进入/退出手写模式
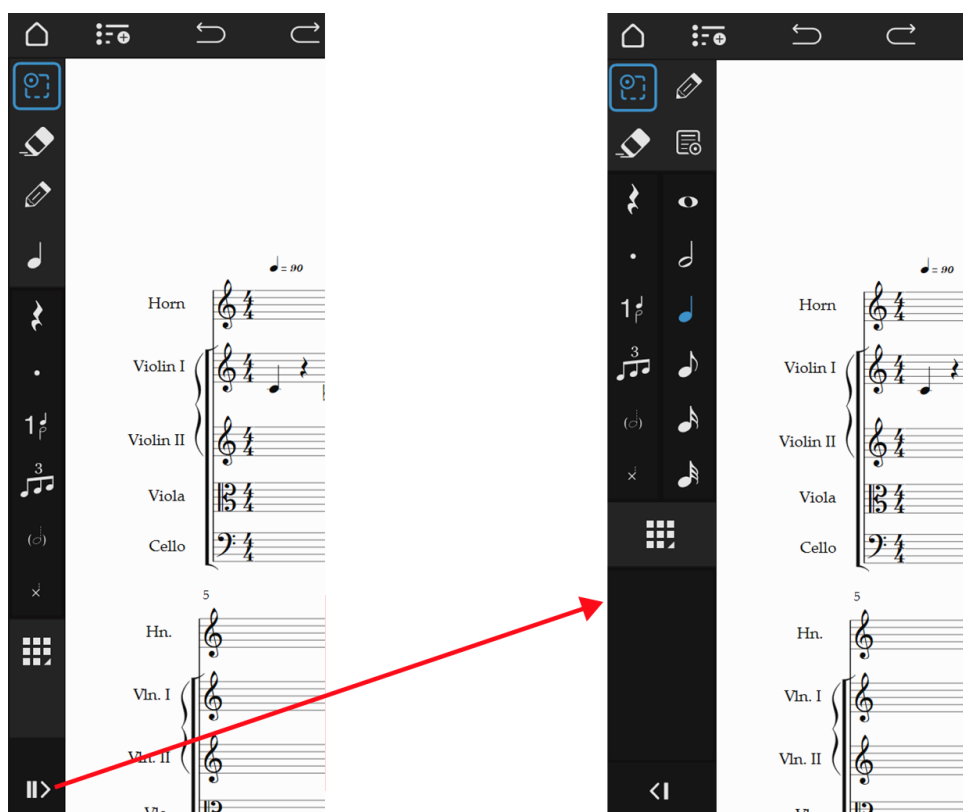
Extended Palette视图

您可以将屏幕键盘上钢琴键的宽度更改为三种不同的宽度 - 请参阅 **Entering Notes** 了解更多信息。

移动/缩放

你可以任意地移动页面和放大或缩小——这样做取决于你使用的是什么类型的设备，以及你是否在使用手写识别。

- 处于正常输入或自动手写模式的触摸屏上(即使用苹果铅笔或Surface Pen)。
  - 缩放时，两根手指捏在一起放大，或分开放大。
  - 滚动使，用一个手指拖动页面。
- 在触摸屏上，处于手动手写模式时 (也就是使用普通的手写笔或手指来手写笔记)：
  - 缩放时，两根手指捏在一起放大，或分开放大。
  - 要滚动，用**两**个手指拖动页面。
- 用键盘快捷键：
  - 要放大，请使用**[Ctrl +]**。
  - 缩小，请使用**[Ctrl -]**。
  - (对于 macOS 和 iOS，用 Cmd 代替 Ctrl)
- 在桌面上用鼠标滚轮：
  - 使用滚轮垂直向上/向下移动
  - 使用**[Shift+Scroll Wheel]**进行水平方向的左/右移动*
  - 使用**[Ctrl+Scroll Wheel]** 来放大/缩小

*注意：如果这不起作用，请检查滚动锁是否打开。
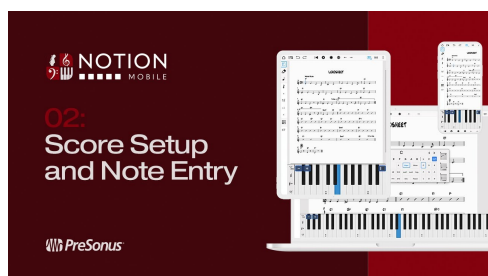
录入音符

有许多方法可以将音符输入Notion Mobile，包括实时播放、手写、导入MusicXML，或者简单地敲击音符。你所选择的音符输入方法不仅取决于你的偏好，还取决于上下文—快速、华丽的段落用 step-time 来输入会更准确。这也将取决于你可能有哪些外围设备—例如，你可以用Apple Pencil画画，用附件键盘输入键盘快捷键，或用MIDI Bluetooth 钢琴键盘弹奏音符。

- **点选(或点击)笔记在**

这是开始输入笔记的最简单的方法。

- 在工具选项板上点选 **Note Tool** 音符工具。
- 在乐谱中，手输入你想输入音符的位置。
- 就是这样的！

改变持续时间
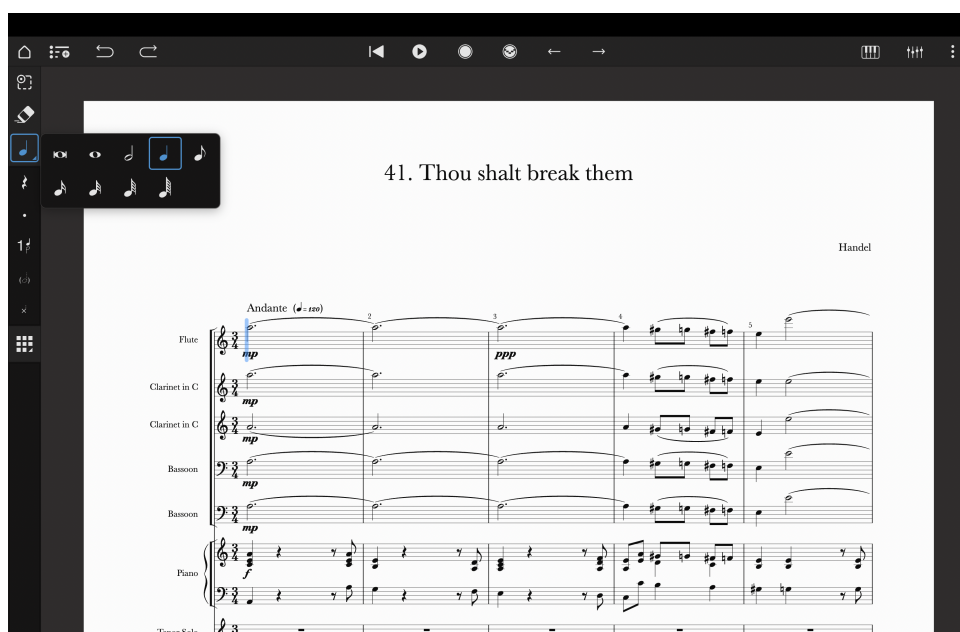
- 点击 **Note Tool** ，选择当前显示的持续时间。
- 再点一下，显示所有选项，以选择不同的持续时间。
- 要通过单个手势快速更改持续时间，请按住并滑动笔记工具将其打开，然后在所需的持续时间上松开。无论你是敲击触摸屏还是用鼠标点击，都能发挥作用。
- 如果您有连接的键盘(有线或蓝牙)，那么您还可以使用键盘快捷键来更改音符时长。

输入音符时改变Pitch音准

- 在触摸屏上，长按乐谱会在你的手指下显示一个十字线。现在你可以精准地向上和向下拖动，以获得你想要的音准，然后再放手录入音符。

- 在这个长按过程中，你也可以稍微向左或向右拖动——这将为你的音符添加一个临时记号，相应地使它升高或降低。

- 如果你在鼓谱上输入鼓的音符，鼓的标签，也会出现在你手指下的十字线上 (例如 "Tom 14") ——你也可以稍微向左或向右拖动，这将增加一个变化，并改变符头或符干。(例如 "比如 Tom 14 Rimshot")
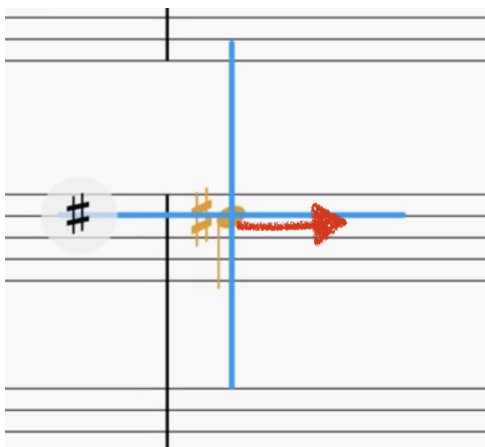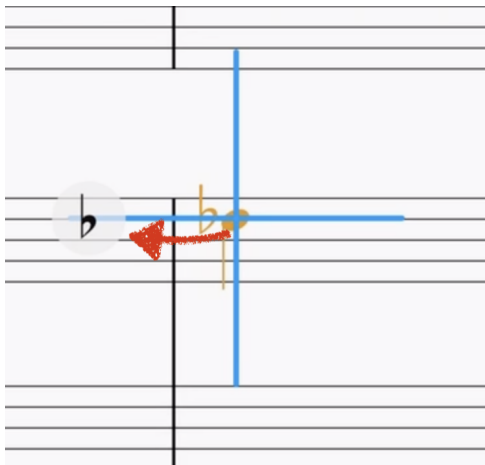
在图谱上输入音符

- 选择你想要的持续时间，然后点击需要的弦乐组。

- 一个文本框会出现，如果你使用的是触摸屏，屏幕键盘会出现。

- 输入音符号，然后点回车。

进入休息状态

- 用Note Tool选择时长。

- 轻敲休止符图标。

- 要回到音符输入，请再次点击 rest图标或 Note Tool。

- 休止符也可以用键盘快捷键来选择——持续时间的快捷键在你重复按动时，会在音符和休止符之间切换。

- 你还可以将现有的音符改为休止符，反之亦然——只要选择段落或项目，接着选择Note > Toggle Note 或Rest。或是，只需点击Shift+Backspace。

阶梯式输入

Step Entry 阶梯输入法，让你在任意时间内循序渐进地输入音符，一个接一个。节奏的时长，可以通过选择选项板中的Note Tool 或键盘快捷键(如果你有键盘连接)来输入。然后有多种方法输入音高：

使用Onscreen Instrument的 Step Entry(步骤输入)
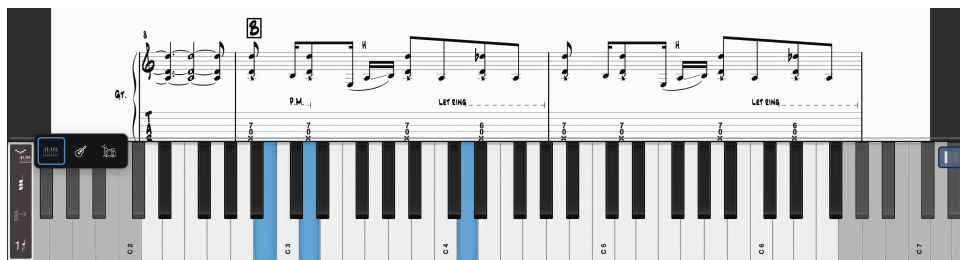
- 点击顶端右上角的屏幕乐器 **piano icon** 钢琴图标。
- 当图标为蓝色时，长按或轻扫图标，可迅速从钢琴键盘切换到吉他指板或鼓垫。(您还可以通过滑动仪器本身上的步骤输入图标来更改显示的仪器 - 见下文)。
- 点选任意Step Entry 步骤输入图标-- 在屏幕顶部的中间的主传输区有一个，还有一个在底部屏幕乐器的左侧。
- 从**Note Tool**或键盘快捷键，进行选择所需的时长。
- 点击屏幕上的乐器，输入音符。
- 要输入和弦而不是单个音符，请点击乐器中的和弦图标，然后在乐器中建立和弦。在输入工具中点 right arrow icon 右箭头图标进入。
- 重复先前输入的和弦，点击带有箭头的和弦图标—— 第一个和弦一旦输入，就可以选择这个和弦。
- 要在Step Time,内输入rest，选择所需的时间，然后点击调色板中的休息图标或使用键盘快捷键.
- 要在"Step Time"中添加延音线，先输入延音线的第一个音符，然后点击选项板中的Tie Tool，或使用键盘快捷键；T 。
- 要左右导航，请使用运输区的左右箭头图标，或使用导航键盘快捷键。
- 如果您要将移调乐器的音符输入到移调乐谱中，您可以选择演奏发声音高(您自己移调)，或者让 Notion 为您移调。转至录音设置>转置输入。

钢琴键盘
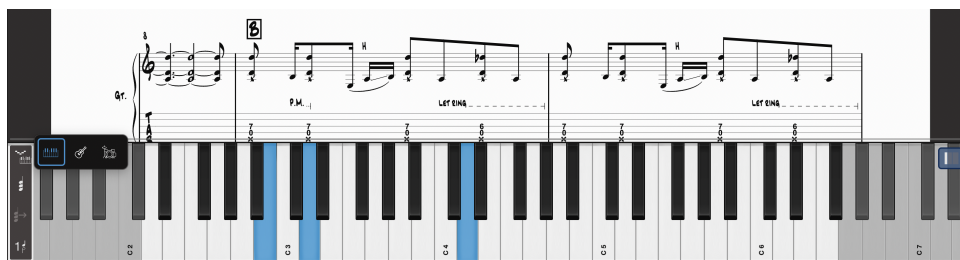
- 要转移八度音，可以点击 **"+/-"图标**，或者在键盘的顶部滑动。这时会出现一个蓝色的滑动区域，你可以左右拖动键盘，甚至在你实时录音的时候使用它(见下文)。
- 你可以调整按键的宽度，以适应你的屏幕尺寸和个人喜好。有三种不同的宽度-- 点击宽度图标在它们之间切换。

吉他指板

- 转换指板，请点击 **"+/-"图标**。

Drum Pads电子打击乐
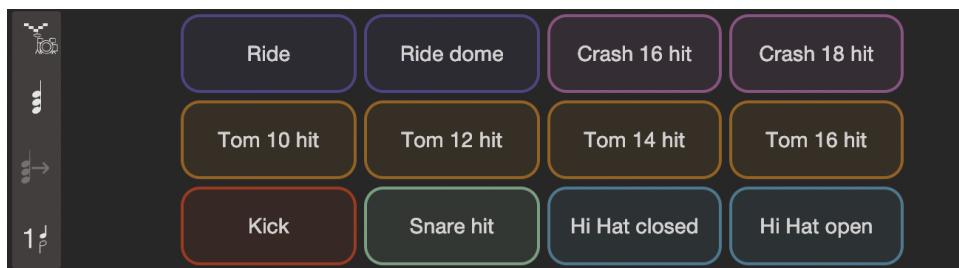
- 当选择鼓音乐时，可以使用一组12个彩色编码Drum Pads。点击Drum Pads进入 -- 各自的音符头和例如颤音将被自动添加。

- 要在 pads上显示鼓声的变化，可以在pads上点击右键或长按，进行选择。向下滚动列表，选择"Reset Pads"，以回到默认状态。

- 如果选择了有音调的乐器，Drum Pads 将显示音调和它们的八度音（如A4）--这些可以通过敲击来输入。要改变八度音，请点击Up / Down Pads。
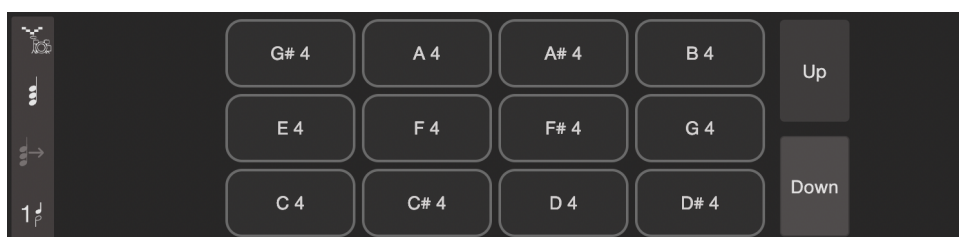
使用MIDI乐器的Step Entry步骤输入

- 连接MIDI乐器到你的设备上，可以通过有线或蓝牙。

- 进入Notion 中的Application Menu > Record Setup，从下拉列表中选择你的MIDI乐器。

- 点击屏幕顶部传输区的Step Entry 图标。

- 从Note Tool或键盘快捷键，进行选择所需的时长。

- 用附带的键盘输入你的音符/和声。

- 要在"步进时间"期间输入休息时间，请选择所需的持续时间，然后点击调色板中的休息图标或使用键盘快捷键；**空格键**。

- 要在"步骤时间"期间添加领带，请输入领带的第一个音符，然后点击调色板中的**领带工具**，或使用键盘快捷键；**T**。然后输入延音线的第二个音符。

- 要左右导航，请使用运输区的左右箭头图标，或使用导航键盘快捷键。

- 如果您要将移调乐器的音符输入到移调乐谱中，您可以选择演奏发声音高（您自己移调），或者让 Notion 为您移调。转至录音设置>转置输入。

实时录制

Notion可以实时录音，你可根据节拍器的敲击演奏时，输入音符和时长。这种方法最适合于简单的音乐制作 — 如果一个段落错综复杂，那么就改变节拍器的标记，调整输入的速度，或者使用不同的音符输入方法，如Step Entry。你可以使用屏幕上的乐器或附加的MIDI乐器进行输入--点击传送器上的记录按钮并播放。一旦你停下来，Notion会分析你的演奏，并把它变成记号。

设置录音选项

- 进入应用Application Menu>Record Options。

- 如果需要，选择连接的MIDI乐器。

- 切换节拍器点击打开或关闭-- 对录音和回放都适用。

- 在你开始录音前，选择 Notion 会计算多少小节。

- 选择"移调输入"以调整 Notion 是否应在音符输入上移调 MIDI 乐器。

- 接下来的选项决定了 Notion 如何分析您的表现。默认情况下，会设置为优化 MIDI 键盘输入 -- 点击 Presets 按钮，在 MIDI Guitar 和 MIDI keyboard 之间切换。

  - **Min Velocity** 设置一个音符的最小 MIDI 音符力度，从 1 到 127。Notion 不考虑低于这个设置水平的音符。

  - **Min Duration** 设置一个音符的最小持续时间 (毫秒)。Notion 不考虑低于这个设置的持续时间的音符。

  - **Split Point** :如果你要在 Grand Staff 大五线谱上输入音符 (一件乐器有两个五线谱，一只手一个。例如 :钢琴、竖琴、木琴) 你可以设置在 Notion 向任意一只手发送和记下音符的 split point 分割点。钢琴的默认设置是 C4，即中间 C。

  - **Tuplets** 在分析中，确定 Notion 是否应该使用 tuplets(tuplets 不仅指三连音，还包括其他组别)。

  - **Multi-channel guitar** :如果你有一个多通道的 MIDI 吉他控制器，这告诉你 Notion 监听每根弦自己的通道。

默认的节拍器点击持续时间
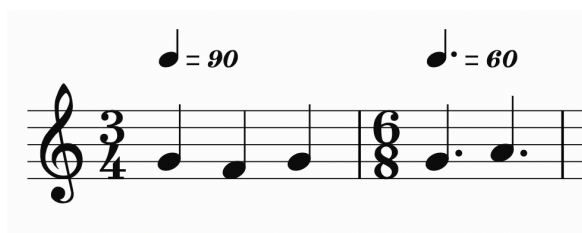
在点击节拍器时，Notion 会跟随节拍器标记的输出。这一点很重要，尤其是在乐曲后面有时间符号变化的情况下，一定要记住。例如，一首曲子可以从 **3/4 中的四分音符 = 90** 开始，但随后更改为 6/8。除非添加新的节拍器标记，否则节拍器将继续以每小节 3 倍的四分音符点击。在这种情况下，应在时间符号的变化处，增加一个新的节拍器标记，**即带 符点 的四分音符 = 60** — 然后你会听到每个测量点有两声咔哒声，这是预料之中的事。

手写识别

你也可以使用你自己的手写识别作为 note entry tool。Notion 的手写引擎由 MyScript™ 提供支持，该引擎已分析了数千种不同的音乐手写风格 - 这意味着无需学习自定义手势，软件也不需要"学习"您自己的个人风格。Notion 可以转换音符、休止符、和弦、连音线、小节线、变音记号、时间符号、小节线、分类线、滑音、延音线、谱号。完整的项目示意图见下文。所有平台都支持手写 (Windows, macOS, iOS, Android) 和所有设备 (手机、平板电脑、电脑) 你可以使用手写笔甚至用手指。压力敏感度也适用于主动式触控笔。如果你使用 Notion Mobile 不在触摸屏上，也可以选择使用图形输入板进行手写。

手写识别可用于标准的 5-line notation staves 记谱法上 (即不是单行打击乐谱，也不是乐谱) — 它是一个付费功能，可通过 in-app 或用你的 Studio One+ 账户登录来解锁。

主动式手写触控笔 (例如 :苹果铅笔/微软 Surface Pen)

Notion 可以自动检测手写笔和手指之间的区别。

- 如果你使用这种类型的手写笔，在默认情况下，手写笔会自动投入使用，使你的手指自由地进行正常的音符输入和乐谱导航。

- 你仍然可以选择手动切换模式 -- 进入 Application Menu > Options，选择 Pencil Handwriting 'Off' 关闭。然后你可以通过使用手写工具图标，手动进行切换，该图标在 Extended Palette 视图中可见 (Application Menu>Options>Extended Palette)

- 这些类型的触控笔启用了压力敏感度，你在绘图时，线条的粗细会根据你按压的力度而变化。虽然这些信息最终会在转换时被丢弃，但绘图感觉更自然，也更准确。

- 有了二代 Apple Pencil，你可以在测量范围外双击进行识别，而不是等待固定长度的定时器。

- 在手写模式下，你还可以通过在多个对象周围作画来 "lasso" 选择，使用活动手写笔。Notion 会自动检测到与手写符号相比的自由选择，并相应切换模式。Notion 会自动检测您的手指和 Apple Pencil 并相应地切换模式。

用手写/标准触控笔

- 点击一组音调中的调色板中的 Handwriting Tool('pencil' 图标)。

- 现在你可在你的乐谱中绘画

- 在短暂的静止时间后，Notion会分析你的手写并将其转化为数字音符
- 在手写模式下浏览或缩放你的音符，没有你不需要的线，可同时用两个手指拖动和捏住。

Delete 删除

要在手写模式下进行删除，只需在音符头上涂抹即可完全删除，或在个别附加元素(如重音)上涂抹。另外，你也可以选择该项目，然后像平常一样使用Erase Tool -- 但这并不具有治疗作用。

声音

你可以用手写的方式书写不同的语音 -- 只要先用Voice Tool选择语音(见下文)。

鼓/打击乐

对于使用5线谱的鼓琴和打击乐器，也可书写——识别时，输入相邻的音符/方法/notehead。例如，如果你在鼓谱的顶线上写了一个四分音符(即，用于打击乐器)，在识别时，它会自动转换为十字音符。

手写识别延迟

从写入最后一个音符到转换为数字音符，你可以调整它们之间的时间段。转换延迟的范围从0秒(或瞬时转换)，到非活动期开始后的10秒。
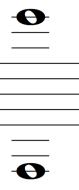
- 转到Application Menu > Options > Recognition Delay。
- 调整滑块并尝试不同的水平，直到你找到一个适合你的水平。

便捷的书写提示

- 如果你在准确输入音符和符号方面有困难，可以稍微放大一点。
- 触控笔支持比你的手指更准确，而且由于压力敏感，感觉更像真正的书写。
- 实验一下手写计时器，以适应你自己的喜好。
- 混合笔记输入法 — 例如，用你的手指或Step Entry输入音符，然后用Apple Pencil 来手写发音。Notion 会自动检测您的手指和 Apple Pencil 并相应地切换模式。
- 如果在已有音符的小节上添加音符，Notion将重新分析整个小节--这可能还不错，但如果有一些现有的元素不被手写引擎支持(比如宽限音符)，那这些会被忽略甚至丢弃。在这种情况下，最好使用另一种笔记输入方法，以避免重新输入这些元素。
- 对于单独乐器使用多个谱表的Grand Staff 大谱表(如竖琴/钢琴)，建议一次将音符画到一个谱上。
- 请记住 -- 不支持鼓、打击乐和乐谱谱表！

手写图表

休止符持续时间	Ties延音线 / Slurs圆滑线
Tuplets几连音	演奏法
五线谱上的拍号	加线

Voice Tool 工具

在Notion Mobile中，每个五线谱最多可以输入四个声音 (欢迎礼包的一部分提供Voices 3和4 — 免费注册以解锁) 。所有输入法中的音符将默认为Voices 1。如果你想用不同的语音输入，请点击Voice Tool 工具 — 你可以在主选项板中，或在onscreen instrument屏幕乐器的左手边，访问Voice Tool 。这将在你选择的最后的两个声音之间快速切换。要选择其他语音，只需长按打开选项，**或按+滑动+释放**。

- 你也可以用键盘快捷键选择声音。

- 对于现有的音符你可以选择，接着选择把它发送到一个特定的语音。打开Context Menu,，然后选择**Tools>Send to Voice X**.

- 如果你已经写好了两个声音，你想在它们之间交换音符，只需选择段落，打开Context Menu，然后选择Tools>Swap Voices。

选择和编辑音符

你可以在 Notion Mobile 中快速选择和编辑，并有各种方法可以适应你喜欢的工作流程。一旦做出选择，你可以：拖动来移动音高；复制/剪切/复制；对所有的音符应用衔接；将音符改为休止符；在选择的左侧添加动态；通过点击时长选项板来改变时长以及更多。

做选择

选择单独的元素
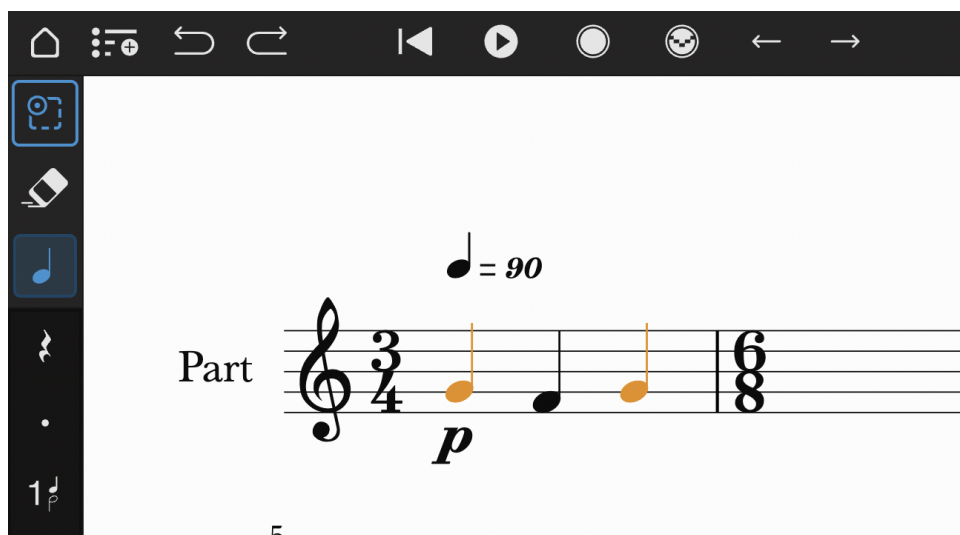
- 点击**选择工具**。
- 点一个元素(如音符、休止符、动态等)来选择它 -- 该元素会变成橙色。
- 要选择多个不相邻的元素(即不相邻的音符)，在点击音符头时按住 **Shift**。

选择一个范围

- 用鼠标：点击并拖动你想选择的元素。
- 用触摸屏：点击屏幕并短暂停留，然后将手指拖到你想选择的元素上。
- 要快速选择整个乐段，可双击或双击乐段。
- 要增加范围，可以拖动所选区域的两个圆形手柄，或者在点击的同时按住Shift键，将范围扩大到你所点击的措施。
- 使用有源手写笔(或 "lasso选择")：在手写模式下，使用你的有源手写笔(如Apple Pencil或Surface Pen)在选定的元素周围作画。Notion 会自动选择它们。

从选择中删除项目

- **[Shift+点击]** 单个元素
- **[Opt+Shift+Drag]** 从选择中删除多个元素。

选择 All / Part 所有/部分

- 要选择整个乐谱，请进入 Context Menu>Select>Select All (Ctrl+A)。
- 要选择整个当前部分，请进入 Context Menu>Select>Select Part (Ctrl+Shift+A)。
- 要 Deselect 取消全部，请点击离开选定的范围，或进入 Context Menu>Select>Deselect All (Ctrl+D)（见下文的 Context Menu）。

改变选择的音高

注意，在默认情况下，你拖动音符时，Notion Mobile 会进行试听，这样可以听出你的变化。你可以在 Application Menu>Options>Play Notes 导航时，禁用它。

改变个别音符的音高

- 点击并向上/向下拖动音符以改变音高。
- 点击并向左/右拖动音符以改变变音记号。
- 对于鼓手来说，点击并向左/右拖动音符来改变记谱的演奏技巧。

改变选定音符的音高

- 点击所选音符的符头或符干，然后向上/向下拖动来改变音调。

用键盘快捷键调整音高

- 按住 **[Alt/Option]**，同时向上或向下拖动音符，只改变变音音符，而保持音高不变。
- **[Up/Down]** 挪动音符的全音阶。
- **[Ctrl/Cmd + Up/Down arrows]** 以半音阶方式移动音符。
- **[Shift+上/下箭头]** 将音符移动一个八度。

使用 Enharmonic tool 工具

- 要改变所选音符的和声（例如，从F#切换到Gb），请打开"Tools Grid"，点击 Enharmonics tool。或者，使用键盘上的快捷或者，使用键盘上的快捷 **[E]**。

改变选择的持续时间

- 点选音调中的节奏的持续时间，来改变所选音符的持续时间。
- 键盘快捷键可以改变所选音符的时长，例如，**E** 代表八分音符（注意，你可以使用字母或数字来表示时长-- 更多信息请见第16章，**键盘快捷键**。

在音符或休止符之间进行切换

- 通过使用 **"Toggle Note or Rest"** 工具，你可以迅速将现有的音符变成休止符，反之亦然。做选择，然后进入 Context Menu>Tools>Toggle Note or Rest，或使用键盘快捷键；**[Shift + Del]**。
- 从休止符到音符时，Notion在中间线上创建音高——你可以按照你希望的，重新匹配（见上文）。

复制和粘贴以及更多...

你可以独立做很多事情—选定的元素或一系列的目标。首先进行选择（见上文）。接着：首先进行选择（见上文），然后：

编辑界面
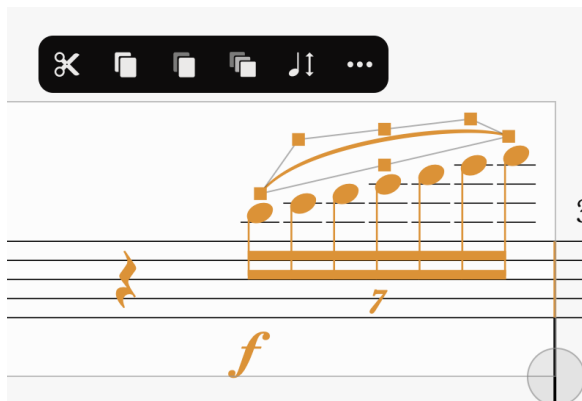
如果你双击measure来选择它，会弹出一个编辑快捷键界面。一旦做出选择，这是一种快速访问最常用工具的方法。

- **Cut** 剪切选定的音乐，将其保留在剪贴板上，准备粘贴。
- **Copy** 复制所选的音乐，然准备在需要的地方粘贴。
- **Paste** 在当前粘贴光标位置的剪切或复制的选择。
- **Duplicate** 复制当前选区，并将其粘贴在选区的最后。
- **Transpose** 打开Transposedialog界面。
- **...** 打开完整的Context Menu(见下文)。

这有一些键盘快捷键：剪切 **[Ctrl+X]** ，复制 **[Ctrl+C]** ，粘贴 **[Ctrl+V]** ，粘贴插入 **[Ctrl+Shift+V]** 和复制 **[D]** 。

Paste Reflow 重排
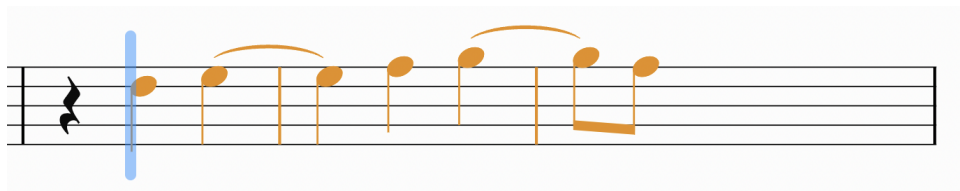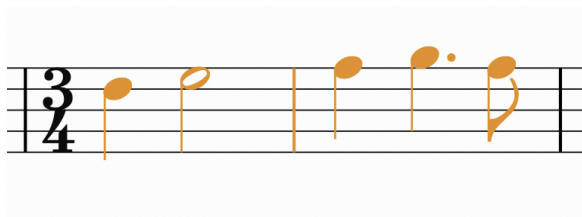
当把复制或剪切的选段，粘贴到与原来不同的节奏位置时，Notion会在小节线上重排音乐。Notion将重写持续时间，并根据需要，添加/删除延音线。

快捷菜单
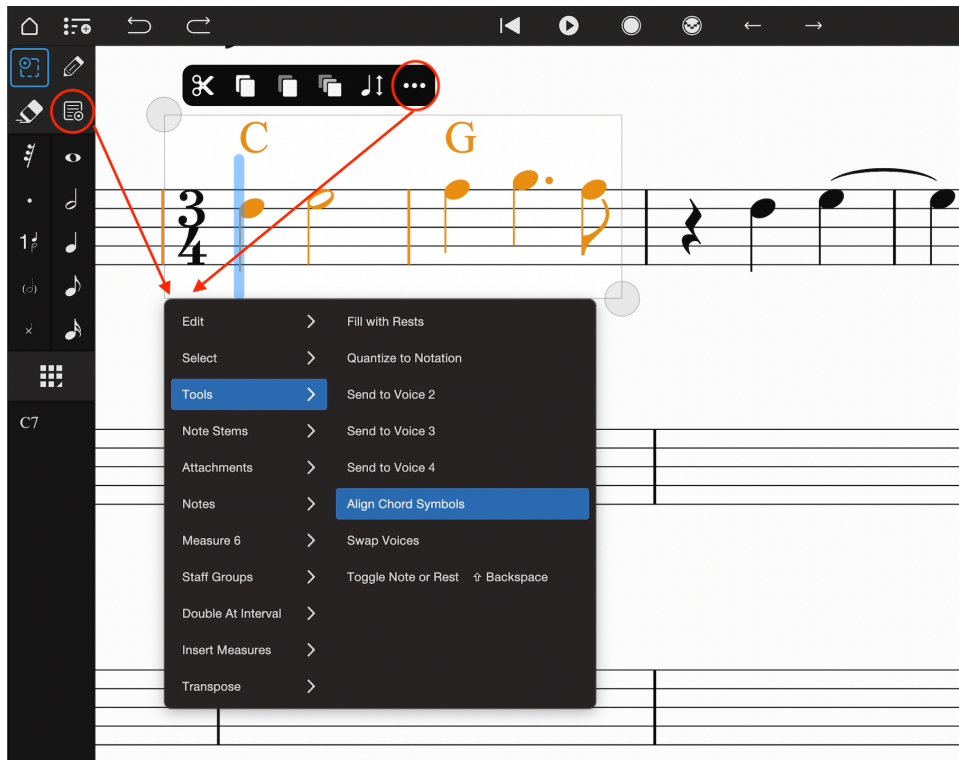
打开快捷菜单，你可以这样：

1. 右键单击 (或在触摸屏上长按) 。
2. 双击做矩形选择，然后点击三个点图标。[...]**[...]**
3. 在 Extended palette中，点击Context Menu 图标。(要查看两栏式Extended Palette，请进入Application Menu>Options) 。

Context Menu 是自动适配的，它只显示与选区内容相关的工具-- 例如，实际只在选区内有两个或更多的和弦符号时，工具菜单中的对齐和弦符号才会显示。

上下文菜单选项包括：

编辑

除了剪切/粘贴/复制/拷贝，从编辑菜单中你还可以：

- **Delete** 删除选择。或者使用键盘快捷键 **[Delete]** ，或点击选项板上的eraser 图标。
- **Paste Insert** 粘贴，而不覆盖任何后续音符。
- **Paste into Voice x** 粘贴到另一个声音中。声音3和4是欢迎礼包的一部分，注册后可免费获得。
- **Delete Measures** 删除选择范围内的所有小节。

选择

- 选全部
- 取消全部选择
- 选择零件
- 选择和声符号
- 选择歌词
- **Select Voice x** ，其中x是语音1到4。
- **Select Highest Notes** - 选择选区中和弦的最高音。
- **Select Lowest Notes** - 选择选区中和弦的最低音。

工具

- **Fill with Rests** 用休止符填充当前选择的区域。
- **用节奏斜线填充** 用无干节奏斜线填充当前选定的区域。
- **Make Tuplet** 将选定的音符变成一个tuplet。
- **Remove Tuplet** 从选定的音符中删除连音。
- **Quantize to Notation** 调整MIDI录制时长和节奏，使之与记谱完全一致。
- **Send to Voice x** 将选定的音符发送至所需的声音。声音3和4是欢迎礼包的一部分，注册后可免费获得。
- **Switch Staff** 在grand staff乐器中，把音符从一只手移到另一只手。(请注意，这与"交叉五线谱"表示法不同，其中音符仍然是一个五线谱的一部分，但显示在另一个五线谱中 - 这可以从调色板中获得)
- **Align Fingerings** 在五线谱上方垂直对齐 2 个或更多和弦符号。
- **Align Chord Symbols** 在五线谱上方垂直对齐 2 个或更多和弦符号。
- **Swap Voices** 如果在一个选择中存在两个声部，这个工具将在两个声部之间交换音符。
- **Reset Tab numbers** 重置制表符数字，将制表符数字集中到第五音阶附近。
- **Toggle Note / Rest** 切换音符/休止符，将所有选择的音符变成其等值的休止符，反之亦然。或者使用键盘快捷键Shift + Backspace。
- **Remove Measure Rests** 删除小节休止符可以删除所选小节中的整节休止符。
- **Show/Hide Rests** 显示或隐藏休止符。

演奏法

- **Articulations Above / Default / Below** 调整音符头的哪一面应在选择中显示。
- **Remove Articulations** 从选择中删除连音(或键盘快捷键；[Ctrl+Backspace])。

音符干

- **Stems Up / Default / Below** 一边的音符头改变的是音符杆。
- **Show Stems** 显示/隐藏一个音符的词干。

附加

- **Attachments Above / Default / Below** 调整附件在选择中应显示在注头的哪一面。
- **Show / Hide attachments** 显示或隐藏附件。
- **Shorten Tempo Marks** 缩写节拍器标记，其中每个小节可能显示许多节拍器标记(例如从 MIDI 速度轨道导入后)。
- **移除临时标记**

音符

- **Show as Rhythm Slash** 将音符改为节奏斜线。将音符改为节奏斜线。任何在节奏斜线上的和弦符号都会在播放中发出声音。任何在节奏斜线上的和弦符号都会在播放中发出声音。你也可以用上面的Note Stems>Hide Stems来隐藏四分音符斜线的音干。
- **Show as Cues** 将音符改为提示音符的大小。
- **Show as Ghost Notes** 把音符改成了鬼魂音符。
- **Show as Grace Notes** 把音符改成装饰音
- **Show Grace Slash** 显示/隐藏装饰音符(=appoggiatura) 上的斜线。
- **Set as Tacet** 设置为全休止符时，音符将不会回放(但仍可正常输出)。
- **Remove Accidentals** 从所选音符中，移除所有的变音音符。

Measure x (其中，x是当前的小节编号)

- **始终/ 从不显示Measure Number** ，强制显示小节编号。甚至在整个文件选项中，小节编号也被关闭了(反之亦然)。
- **Force New System** 从选定的小节中强制建立一个新系统。
- **Force New Page** 从选定的小节中，强制生成新的一页(仅在输出视图中)。
- **Link to Next Measure** 将当前的小节和后面的小节，始终保持在同一个系统中。
- **Regular Measure** 将该小节变成一个普通小节。
- **Pickup Measure** 将该小节变成一个拾音小节(或称anacrusis)。然后在拾音节中，输入你需要的音符或休止符。
- **Partial Measure** 将小节变成部分小节，例如，这样你能够在一个系统上分割一个长小节。

记谱法

如果你选择了一个以上的乐器记谱，你可以用以下方式将它们分组：

- **Brace Group** 在系统的开头创建一个"curly"，通常用于钢琴等大谱系乐器。
- **Bracket Group** 在系统的开始处创建一个"straight bracket"，通常是为了将同一家族的乐器组合在一起。
- **Barline Group** 将小节线延伸到若干个音阶上，通常是通过同一家族的乐器。
- **Show Tempo Information** 可以选择在每组的顶部重复节拍器的标记。

调整动态

- **Dynamic Adjustment** 调整输出动态的播放级别。每个整数代表一个动态等级(比如，mf, f, ff)。
- **Adjust Notated Dynamics** 也可以选择改变输出的动态。如果关闭，你可以播放与输出的动态不同的动态。
- **Double at Interval** 在当前选区的上方或下方，添加音符。
  - 选择区间，间隔期的音程，以及在哪些八度音内添加它们。
- **Insert Measures** 在乐谱中插入指定数量的空节拍。
- **Text Style** 可用于调整所选文本的字体、字号和样式。
  - 使用版面风格-- 使用默认的统一文字风格
- **转调**
  - 选择音程，音程质量，以及通过多少个八度转调。
  - 转调符号选项—如果在一个系统中的每一个谱表都被选中，那么你可以选择调号和音符进行移调。
- **连音** 菜单允许创建自定义连音。(要创建简单的连音，请使用工具菜单中的'创建连音'命令，或按 Ctrl+T)
  - 将一组音符变成一个自定义连音——例如：在 4 个音符的空间中加入 5 个音符
  - 选择只显示数字(如 5)、显示比例(如 5:4)或完全不显示
  - 选择在连音上显示或隐藏括号
  - 选择在上方、下方或默认位置强制显示连音数字和括号

使用工具网格

点选"Tools Grid"图标打开,然后选你想使用的工具—或者说— 并快速地— 当你用手指触屏时,滑动打开Tools Grid,然后释放你想使用的工具。每个工具也都有自己的键盘快捷键,例如,**[C]** 代表Clef工具。你也可以使用左/右方向键在"Tools Grid "中进行导航,点回车键选择一个工具。

如果被选中的工具有更多的选项,这些选项会出现在"Tools Grid"中。默认情况下,这些选项被安排在一列,但如果你有一个更大的设备,你可以选择使用Extended Palette,它是两列— 进入Application Menu > Options> Extended Palette。显示的其他选项,也有键盘快捷键— 使用数字1-9。你也可以使用 **[Alt+Left/Right arrow keys]** 来浏览更多的选项,或者简单地重复按下主要工具的键盘快捷键来切换这些选项。

使用键盘快捷键选择低音谱号的实例:

- 键入 **[C]** 谱号,然后键入 **[2]** 低音谱号,或
- 键入 **[CC]** 谱号

选定后,点击你想使用该工具的乐谱,无论是添加拍号的变化,还是在现有的音符上添加顿音,例如

一些工具可以应用于现有音符的选择—例如,如果你选择了一个16分音符的范围,可以点击断奏演奏法,来应用于所有的音符。动态效果也一样—例如,选择工具并点击单个音符来添加forté,或者在点击动态之前,先选择不同的乐谱。Forté 将被添加到选择中的每个乐器的左侧。

要清除工具选择,请点击选项板顶部的选择图标,或按键盘快捷键 **[Esc]。**

工具清单:

- **延音线**
  - 选择该工具,接着点击两个相同音高音符中的第一个音符,以增加或删除一个延音线。
- **演奏法**
  - 重音,持续音和跳音标记
- **变音记号**
  - 降调、平调、双调/升调/降调(四分音符)。
- **小于半音的**
  - 在选定的音符上使用,或者先选择工具,然后点击音符—这将改变一个音符的等音,例如,将F#改为Gb。
- **音乐符号**
  - 点选并拖动进入,或先做选择,然后点选工具
- **动态**
  - 点选进入,或先做出选择,以在多个乐器谱上输入
- **渐强(力度标记)**
  - 点选并拖动进入,或先做选择,然后点选工具
- **突强(力度标记)**
- **谱号**
  - 选择该工具,并点击你想改变谱号的小节。或者双击现有的谱号来改变它。
- **调号**
  - 选择该工具并点选你想改变调号的小节。或者双击现有的调号来编辑它。在新的调号旁边,你可以选择显示取消的本音,以及是否只为所选的乐器谱插入调号。
  - 如果一个调号出现在一个新的系统或页面的开头,那按理来说调号将出现在前一个系统的结尾。如果你想隐藏这一点,那么长按或右键点击调号,然后进入Tools > Show End of SystemCourtesies。
- **拍子记号**
  - 选择该工具,然后点击要更改拍号的小节。或双击现有的拍号进行编辑。你可以选择显示 4/4 作为四四拍符号 [c]或 2/2 作为二二拍符号(¢),也可以选择是否只为所选乐器谱表插入拍号。
  - 你还可以指定符尾连接模式。例如,要在 7/8 拍中自动以'三加二加二'的模式符扛八分音符,请输入"3+2+2"。如果你在这个模式中添加过多节拍,数字会变成红色以示警告。
  - 如果拍号出现在新系统或页面的开头,那么在上一个系统的结尾处会出现一个礼节性拍号。如果你想要隐藏,

请长按或右键单击拍号，然后转到工具 > 显示系统礼节结束。

- 要完全隐藏拍号，请长按或右键单击拍号，然后转到工具 > 隐藏拍号

- **速度还原**
  - 节拍器
  - 摇摆节奏控制
  - 渐快/渐慢

- **小节线**
  - 点击小节线类型可更改现有小节线

  - 要插入更多小节，请选择单个小节线，然后在乐谱中点击你希望出现更多小节的位置。或使用上下文菜单 > 插入小节

  - 要对小节重新编号，只需双击小节编号，然后输入你想继续编号的数字。如果遇到之前重新编号的小节，Notion 会调整所有后续编号并停止。

- **重复复**
  - 双击末端重复线，用于多次重复标记。
  - 双击首次结束线，用于多次首次结束。

- **文本**
  - 文本框。要添加换行符，请使用 Enter 或 Shift+Enter(取决于平台)

  - 歌词。要添加歌词，请选择该工具，然后点击您要开始的注释下方。开始输入，或者如果您已将文本复制到系统剪贴板并希望在 Notion 中使用，请选择"粘贴"。您可以在单词的最后一个音节上为音节添加连字符，为 melisma 添加下划线。要添加更多诗句，请点击现有诗句下方 - 您可以添加的诗句数量没有限制。

  - 排演标记

- **和弦**
  - 和弦符号和吉他和弦图

- **颤音**
- **音量颤音**
- **琶音线**
- **八度线**
- **弦乐**
- **爵士乐/十六分音符**
- **Navigation flow**(DC、Coda 等)
  - 为了成功播放，所有的流程指令都需要按照正确的顺序添加，例如：
    - Segno>Fine>DS al Fine
    - Segno>To Coda>DS al Coda>Coda

- **指法编号**
  - 您可以向单个音符添加指法编号，或在和弦上方或下方垂直堆叠多个指法。要输入手指替换，请在输入第二个数字时按住"Shift"(取决于平台)。您可以通过选择两个或多个指法来重新对齐多个指法，然后Context Menu>Tools>Align Fingerings。

- **装饰音**
- **停止符号**
  - 选择该工具并将其点击到乐谱中。

  - 要调整回放节奏/停顿/呼吸标记/tenuto(音乐术语，和弦时值)，在乐谱中出现后，双击该符号。然后，你可以通过音符的长度，或通过秒来调整播放长度。

- **八分音符的符尾连接**

- **跨两行音符**
  - 将一个音符横穿大谱表grand staff(如钢琴或竖琴)传给另一只手。

- **仪器更换**
  - 这允许您在同一谱表中更改乐器，例如，木管乐器演奏者从长笛更改为萨克斯管，或将 Bb 单簧管更改为 A 单簧管。点击您想要更改的位置，然后选择新乐器。如果需要，Notion 将更改声音和变调，并根据需要添加新的调

号。Notion 还将在混音器中添加一个新通道，允许同一谱表中的乐器进行不同的混音。

- • 适用于乐器系列的技巧
  - 适用于当前选定五线谱所属乐器系列的技巧，比如 pizz, arco 等。
- • 适用于具体乐器的技巧
  - 仅适用于当前选定乐器五线谱的技巧，比如 straight mute
- 仅适用于吉他的技巧
  - 相比其他乐器，吉他有更多的特定技巧。这些在选择吉他五线谱时就能看到。
  - 比如击弦（Hammer On）、勾弦（Pull-off）、指板敲击（Fretboard Tap）、掐捏&轻扣和声（Pinch & Tap Harmonics）、手掌消音（Palm mute）、拍击（Slap）
  - 上滑（Slide Up）/下滑（Slide Down）
  - 推弦，颤音摇杆（Whammy bar, Vibrato）。拉动并调整"上/下推"功能以调整推弦范围，拉动"左/右"以调整时间
  - 弦数
  - Pimac 指法
  - 上/下击，和声，开放
  - 多指和弦，正常（Normale）
- 竖琴的特定技巧
  - 选定竖琴五线谱时，有关竖琴的附加选项在工具网格中可见。
  - 和声符号 / l.v.（laissez vibrez 缩写）
  - 竖琴踏板图（Ctrl+H）用该图选定所需的音调 - 顶部排为平坦，中间排为自然，底部排为尖锐。该图将显示字母名称。如果你选择"以图形模式显示"，则将显示标准竖琴踏板图。块状物位置即为踏板位置，其中 D、C、B 由左脚操作，E、F、G、A 由右脚操作。Notion 将根据踏板设置回放竖琴滑音。
  - 竖琴踏板使用贴士：若在竖琴图后面的竖琴部分有红色音符，则表明需要进一步改变踏板。激活竖琴踏板工具，点击红色音符。然后踏板对话框打开，并自动谱写被建议的解决方案。若竖琴图自己变成红色，则说明用户需要用超出约定长度的时间来改变踏板。提前将图拉出，或重写段落。

回放
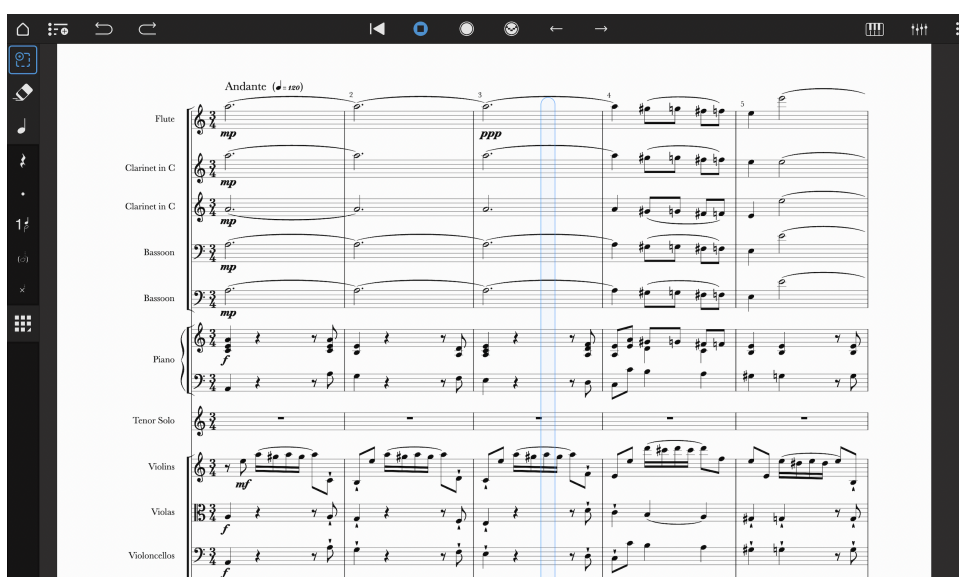
Notion Mobile 配有自定义样本库— 由Notion公司为Notion录制，还有与伦敦交响乐团在Abbey Road Studios的合作。

- 声音列表.
- 请参阅..

Notion Mobile 拥有与Notion Desktop相同的工具，是以节省移动设备空间的小型库。Notion Desktop有所有的动态层、衔接和技巧，包括Notion Mobile中的一个子集。

如果你的设备上没有安装某个特定的Soundset，那么Notion将回到Steinway Grand Piano上，为该乐器演奏音符。这样，移动中你也可以作曲，而不需要在每个设备上安装完整的曲库——只保留钢琴，例如，为你手机的照片和有趣的猫喵视频节省空间——但在你的平板电脑上，保留完整的库。

要播放一个乐谱，把光标放在你想开始的地方，然后点击 **Play** 按钮，或使用键盘快捷键；**[Spacebar]** 。播放将从蓝色光标处开始。要停止，请再次点击同一按钮。

请点击 **Rewind** 按钮(在播放过程中或一旦停止)，回到你最后开始播放的地方。要回到乐谱的开头(或 **Return 到Zero**)，请点两次 **"Rewind "** 按钮或使用键盘快捷键；**[,]** 。

要想在播放过程中停止乐谱的滚动，只需在按下 **Play** 键后，手动拖动乐谱。

如果您只想听到几种乐器，您可以在混音器中手动静音或独奏，或者只是在乐谱中进行选择 - Notion 将仅播放选择中的乐器和音符。

在播放过程中打开或关闭节拍器，进入Application Menu>Record Setup>Metronome。

和弦符号的播放

放在节奏斜线上的和弦符号，将在播放过程中按照其节奏发声。你也可以在斜线上添加衔接、连接和动态标记来影响播放。要停止和弦的回放，可以进行选择并设置为 **Set as Tacet**（如下图）。

设置为Tacet

做一个选择，然后打开Context Menu，选择Notes>Set as Tacet。音符将显示为灰色，不会播放也不会输出为音频。(音符仍会正常输出为黑色)。

摇摆(节奏)
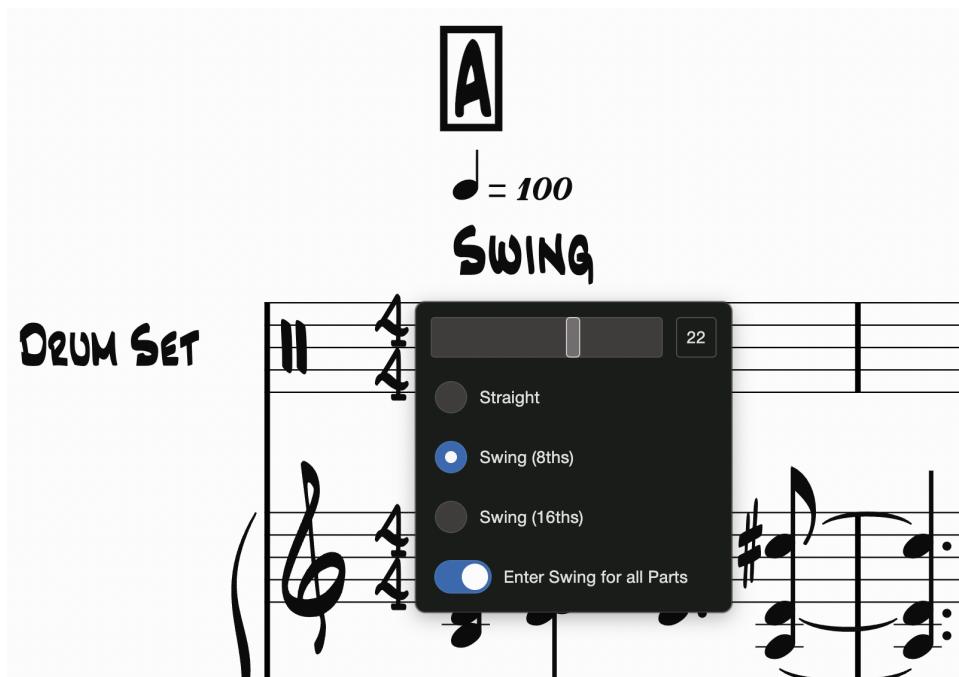
你可以选择让Notion 以Swing 摇摆风格演奏--普通的八分音符或十六分音符，将以三连音的方式摇摆。打开Tools Grid，选择节拍器标记选项板-- 然后你会看到Swing tool 图标在下面(一个"shadow"四分音符) 。或者使用键盘上的快捷方式；**[Shift+S]**。

点击你想要的摇摆节奏乐谱。Swing 对话框将打开 — 你可以选择是摇摆8分音符还是16分音符，也可以选择对所有的五线谱，或只对你要附加摇摆标记的五线谱应用的摇摆节奏。你可以调整摆动的程度，直处于中心位置(值为0)。

- 要取消"Swing"播放，在对话框中选择 **"Straight "**。
- 要调整一个现有的Swing节奏标记，点一次就可以快速进入摆动控制程度，点两次就可以重新打开摆动工具对话框。

混合器
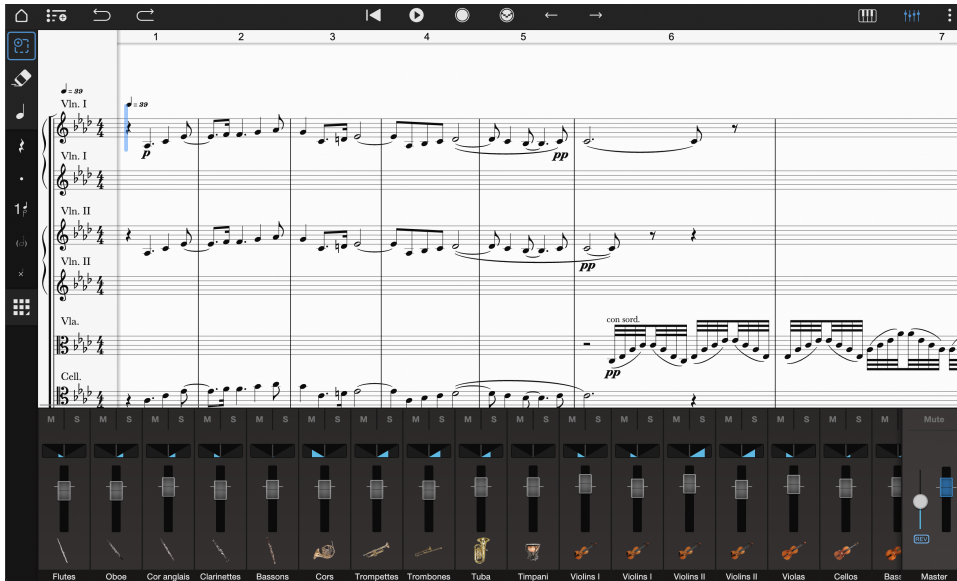
要打开，请点击屏幕右上方的混合器图标，或使用键盘快捷键 **[Ctrl/Cmd+M]**。

在混音器的右边，你会看到带有整体音量和混响控制的主通道，以及一个全局静音按钮。

添加到你的乐谱中的每一种乐器，都会有一个独立的通道，在主通道的左边。对于大的乐谱，你可以向左/右滑动混合器来查看所有的乐器—主通道始终在右侧的顶部可见。

通道控制：

- 独奏或静音
- 调整乐器的panning，以调整它在左右两边的声音
- 乐器的音量

此外，对于电吉他，还有一个Drive控制，以影响回放中的失真程度。

为了微调 Pan 和 Volume 的值，如果你有键盘的话，按住Shift，同时拖动。

音频设备

在Windows或macOS上，使用Notion Mobile时，你可以手动选择用于播放的音频设备。进入Application Menu>Audio Setup，选择你想要的音频设备。

对于其他设备和平台，Notion Mobile 将遵循默认的音频设备。

导出和输出乐谱

通过Notion Mobile 可以输出、分享、导出和传输各种格式的乐谱。

保存

Notion 会在你创作时自动保存进度，以便在出现问题时恢复你的作品。其他保存选项可在应用程序菜单中找到：

- **保存**
    - 这让你可以随时手动保存。也可以使用键盘快捷键 Ctrl/Cmd+S
- **另存为**
    - 这将创建一个文档副本，然后你继续工作，从而保留原始文档。你也可以使用键盘快捷键 Ctrl/Cmd+Shift+S。这与下面的"导出"功能不同，"导出"功能是创建一个副本，但原始文档仍然打开。

打印

要输出，请进入Application Menu，选择Print。或者使用键盘上的快捷键 **[Ctrl/Cmd+P]。** 这将会出现系统的print dialog。

导出

要导出，进入Application Menu，选择Export Score**[Ctrl/Cmd+E]**。你可以在" File Name" 一栏中改变导出文件的名称，或者保持与你的原始文件相同。

然后可以选择Actions：

- **Store File** 以所需的Format，导出到您选择的位置。
- **Share…** 仅在移动设备的操作系统上，提供的标准设备共享菜单。允许：保存到云供应商；通过电子邮件或社交媒体发送；或在支持的情况下发送至另一个应用程序。
- **Save as Template** 这将把当前形式的乐谱保存为Notion 模板，供你从"New Score dialog"对话框的模板列表中选择。
- **Transmit** 作为可选的功能包的一部分，你可以直接传输到运行 PreSonus 应用程序的同一网络中的任何设备上，包括 NotionMobile、Notion Desktop和Studio One Professional。一旦解锁，请确保在每个应用程序中允许网络传输 - 在 Notion Mobile中，进入Application Menu>Options>Network>Allow receiving documents。

然后，可用的导出格式与你选择的上述Action 相对应。

- **乐谱**
    - Notion 文件
    - MusicXML 文件
    - 压缩的MusicXML文件(mxl)
    - MIDI 文件
    - PDF文件
        - 全乐谱
        - 包含全乐谱独立的PDF文件
        - 包含全乐谱和所有部分的独立PDF文件
- **音频**
    - WAV格式
    - Mp3 格式
    - 功能包中有音频格式：
        - FLAC
        - Opus
        - M4a

每种音频格式将显示与所选格式相关的进一步导出选项；比特率、分辨率、采样率、压缩等。

键盘快捷方式

Notion Mobile包括跨平台的键盘快捷方式。

- 数字**1-9**不仅仅是指音符的持续时间——他们可以直接选择所选工具的任何选项
  - 例如，输入 **[C]** 代表谱号，然后输入 **[2]** 代表低音谱号
  - 例如，输入 **[<]** 做发夹，然后 **[4]** 为了 '减少……'
- **[Esc]** 使你回到选择工具，并清除你的光标。
- 一套传统的Notion 持续时间快捷键(如 **[E]** 表示八分音符) 包含在Application Menu>Options>Edit>Letters for Duration 。
- 关于Mac, 在下面的快捷键中, 用 **[Ctrl]** 代替 **[Cmd]** , 用 **[Opt]** 代替 **[Alt].** 。

快捷键- 时长		
默认	**替代方案** (Options Menu> Letters for Duration)	**时长** (切换为休止符)
1		双重全音符/休止符
2	*w*	全音符/休止符
3	*h*	半音符/休止符
4	*q*	四分音符/休止符
5	*e*	八分音符/休止符
6	*s*	十六分音符/休止符
7	*t*	第32个音符/休息
8		第64个音符/休止符
9		第128个音符/休止符
.		Augmentation dot / dots 附点
T	*Alt + t*	延音线
Alt + 2-9		音符录入
Alt + 1		清除音符录入

键盘快捷键 - 全部	
Esc	所选工具
1到9	Tool Options (inc.Note / Rest Durations, long to short)
Alt + Left/Right Cursor Alt +光标左移/右移	选择上一个/下一个工具

A	快速连续弹出和弦的音符
B	切换半音调节
C	谱号
D	重复
E (或是 Alt + E 如果使用持续时间的字母)	小于半音的
F	Toggle Fortes 切换强
G	Toggle Grace / Ghost 切换G发音/幽灵音
H (或Alt + H 如果使用持续字母)	颤音
I	小节线
J	Tempo Tool 工具
K	调号
L	歌词
M	拍号
O	八度音阶
P	Toggle Pianos 切换钢琴
R	Tempo Change 速度还原变化
S (或是 Alt + S 如果使用持续时间的字母)	音乐符号
T (或是 Alt + T 如果使用持续时间的字母)	延音线
W (或是 Alt + W 如果使用持续时间的字母)	Fingering 力度
X	Toggle Noteheads 切换符头
Shift + B	Beam Tool 工具
Shift + C	和弦
Shift + D	Pauses 停止
Shift + F	Mezzo Forte 中强(演奏中强弱力度)
Shift + G	Bends 推弦
Shift + H	颤音
Shift + I	仪器更换

Shift + J	Jump Marks 跳跃记号
Shift + K	Text Box 文本对话框
Shift + L	Gliss Port. 普通滑音
Shift + M	节拍器
Shift + N	Guitar Technique 吉他技巧
Shift + O	String Techniques 技巧
Shift + P	Mezzo Piano 中弱
Shift + Q	Plucking 拨弹乐器的音色
Shift + R	Rehearsal Mark 排练记号
Shift + S	摇摆(节奏)
Shift + T	颤音
Shift + U	Jazz Bends 爵士推弦
Shift + V	Vibrato揉弦
Shift + W	Whammy Bar 摇把
Shift + X	跨两行音符
Shift + Y	Slides 吉他滑音
Shift + Z	Arco Pizz. 拨奏
Ctrl + A	选全部
Ctrl + Shift + A	选择零件
Ctrl + B	Repeat last chord (in Step Time)
Ctrl + C	Copy 复制
Ctrl + D	取消全部选择
Ctrl + E	Export 导出
Ctrl + Shift + F	翻转附件
Ctrl + G	乐谱设置
Ctrl + H	竖琴图
Ctrl + L	Layout / View Menu 布局 / 视图菜单

Ctrl + Shift + L	显示布局手柄
Ctrl + M	混合器
Ctrl + N	New 全新的
Ctrl + O	Open 打开
Ctrl + P	Print 出版
Ctrl + Q	Quit 停止
Ctrl + R	Step Record 阶梯记录
Ctrl + Shift + R	Real-time Record 实时记录
Ctrl + S	Save 保存
Ctrl + Shift + S	Save As 保存为
Ctrl + T	Make Tuplet 连音
Ctrl + V	重排
Ctrl + Shift + V	Paste Insert 粘贴插入
Ctrl + W	Close 关闭
Ctrl + X	Cut 剪切
Ctrl + Y / Ctrl + Shift + Z	Redo 恢复
Ctrl + Z	Undo 撤销
0	Naturals 本音位
#	Sharps 升半音
-	Tenuto 保持
^	Accents 重音
.	Augmentation Dots / Staccato 附点/断奏
<	Crescendos 力度标记
>	Diminuendos 渐弱
Ctrl + 1	Voice 1
Ctrl + 2	Voice 2
Ctrl + 3	Voice 3

Ctrl + 4	Voice 4
Ctrl + .	在选定的音符上添加附点
Del 删除	Delete 删除
Backspace 回车	Delete 删除
Shift + Backspace	Toggle Notes and Rests 切换音符和休止符
Cursor arrows 光标	由音符导航
Ctrl + Backspace	Clear Articulations 清除运音法
Ctrl + 光标	通过小节导航
选择音符时 , 光标向上/向下移动	对音符进行对调
选定音符时按Ctrl + 光标向上/向下	对音符进行半音程移调
选择音符时 , Shift + 光标向上/向下	将音符移调一个八度。
Alt +向上/向下拖动音符	仅改变变音记号
Alt + Home (or Alt+Fn+left arrow)	Home Page 主页
Ctrl + +	放大
Ctrl + -	缩小
[F5]	切换乐谱和选定的部分
[F6]	Continuous View 连续浏览
[F7]	Toggle Page Views 切换页面视图
[F8]	Screen View 屏幕视图
[Space]	Start/Stop 开始/停止
,	返回零点
:	Repeat Ending 重复
%	Toggle Measure Repeats 切换小节重复
*	Toggle Pedal Marks 切换踏板记号

声音列表

Notion Mobile的声音库，是由伦敦交响乐团在Abbey Road Studios 录音室为Notion独家录制的，斯坦威钢琴和古典吉他也是在那里采样的。其他吉他和鼓的样本，是由格莱美获奖艺术家在美国的录音室录制的。管风琴和合唱团的声音是由Soundiron授权的。

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声音集的名称/内容

内建式

- 大钢琴 (Steinway)

欢迎礼包 - 免费注册下载

- 独奏小提琴 (1698 Antonius Stradivarius 制琴)
- 中提琴独奏 (16世纪的 Antonio Brenzi)
- 大提琴独奏 (约1710年 Matteo Gofriller)
- 低音提琴 (1840年 Thomas Kennedy)
- 中音萨克斯管 (Selmer)
- 次中音萨克斯 (Selmer)
- 键盘式钟琴 (Bergerault)

马丁钛金属琴弦 (free)

- 小提琴I & 小提琴II (章节包括: 1698 Antonius Stradivarius, 1701 Johannes Tononi, 1708 Daniel Parker, 1725 Antonio Maria Lavazza, 1725 Spiritus Sarsana, 1730 Paulo Antonio Testore, 1736 Guarneri, 1764 Richard Duke, 18th century Jean-Bap- tiste Viullaume, 1907 Pierre Hel, 2003 Alexander Tzankow)
- 中提琴(章节包括: 1876 Boullangier, 1823 Matthew Hardi, 1880s Joseph Hill (the grandson of "The Joseph Hill"), 1998 John Dilworth, 1912 Antoniazzi Romeo, 1756 North Italian Instrument, 1975 Antonio Capela, 1900 Nicholas Malthuis – Orleans, late 16th century Antonio Brenzi).
- 大提琴(章节包括: 1899 Briggs, 1793 Celianatis, 1821 Thomas Kennedy – London, 1804 William Forster, 1822 Gilkes, 2000 Robert Hawsell, c.1710 Matteo Gofriller)
- 低音乐器(section includes 章节包括: 1840's Thomas Kennedy, 1770 Forster, 1870 Shaw, 1839 Thomas Kennedy, 1850 Vuillaume, 1765 Lorenzo Carcassi)

Core Wind (免费)

- 短笛 (Zentner 黑管)
- 中音长笛 (Yamaha)
- 双簧管 (Howarth)
- 管风琴音栓 (Howarth)
- 单簧管 (Buffet RC Prestige)
- 低音单簧管 (Buffet)
- 大管 (bassoon) 为双簧气鸣乐器 (Heckel)
- 低音大管 (Mollenhauer)
- 喇叭 (Paxman)
- 小号 (Yamaha Xeno)
- 长号 (Conn)

- 低音长号 (King)
- 大号 (Besson Sovereign)

核心节奏/打击乐(免费)

- 原声吉他
- 电贝司
- 电吉他
- 鼓乐组
- 手鼓
- 小军鼓 (Ludwig)
- 吊镲 (Zildjian)
- 镲片 (Zildjian)
- 大鼓 (B+H)
- 定音鼓
- 木琴 (Adams)
- 副歌 (Soundiron 制作的 Olympus Micro Choir)
- 竖琴 (Horngacher)

节段声 (附加) 的声音

- 巴松大管
- 单簧管
- 单簧管
- 长笛 (Powell / Yamaha)
- 长笛
- 双簧管
- 圆号
- 长号部分 (Conn / King)
- 小号部分

管乐器 (附加的)

- 黑管 (Buffet + glass mouthpiece)
- 中音长笛 (Yamaha)
- 低音长笛
- 倍低音单簧管
- 巴赛管
- 抒情双簧管
- 低音双簧管
- 降E上低音萨克斯管 (Selmer)
- 高音萨克斯(Selmer)
- 高音萨克斯(Selmer)
- 萨克斯管 (Tubax)
- 上低音号 (Besson)
- 高音小号
- 低音小号

- 最高的铜管乐器是高音小号
- Flugelhorn(演奏方法，常用于独奏)
- 短号
- 瓦格纳大号
- 长号

爵士木管(附件的)

- 中音萨克斯(Selmer)
- 爵士上低音萨克斯
- 爵士单簧管
- 爵士降B高音萨克斯管
- 爵士次中音萨克斯(Selmer)

爵士拾音器(附加的)

- 爵士小号1
- 爵士小号 2
- 爵士低音长号
- 爵士铜管乐器

键盘乐器+更多吉他(附件的)

- 电钢琴
- 机械乐器
- 电子合成贝司
- 管风琴 (Lakeside Organ by Soundiron)
- 小乐器 (Schiedmayer)
- 拨弦键琴(Robert Goble & Son, 1972)
- 班卓琴
- 古典吉他(Greg Smallman)
- 曼陀铃(Mandolin) 是弹拨乐器
- 电低音提琴
- 尤克里里乐器 (Collings)

打击乐器 (附加的)

- **音效包(Whip, Cuckoo, Ra**tchet, Siren, Car horn, Referee whistle, Siren, Whistle, Champagne bottle, Duck call, Handclap, Wind machine, Rainstick, Church bell, Thunder sheet)
- **打击乐捆绑包(Temple blo**cks, Wine glasses, Hand bells, Concert toms, Saw, Almglocken, Nightingale whistle, Lions roar, Bodhran, Flexatone, Slide whistle, Sizzle cymbal, Guiro, Cabasa, Tam-tam, Maracas, Castanets, Caxixi, Ganza, Drum sticks, Brake drum, Chinese cymbal, Finger cymbals, Bell tree, Hammer, Vibraslap, Flower pots, Cuica, Log Drum, Agogo, Vibrastick, Lead Pipe, Ocean Drum, Train Whistle, Water Gong, Tenor Drum, Piccolo Snare, Anvil, Sand Blocks, Side Drum)
- 响板
- Marimba 一种旋律型打击乐器 (Adams 5 oct)
- Roto Toms欧美鼓套中最重要的乐器
- 管钟 (/Chimes) (Musser)
- Tuned Gongs"作为调谐的锣"并非为单项乐器
- 电颤琴(Musser)

- 响棒
- 牛铃(一种打击乐器)
- 锣(Paiste)
- 雪铃(打击乐器)
- 钹乐器
- 三角铁
- 热瓦普
- 古巴小型鼓

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zlib

zlib.h -- interface of the 'zlib' general purpose compression library version 1.2.12, March 27th, 2022

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Jean-loup Gailly Mark Adler

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Expat XML Parser

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The basic library functions are written in C and are freestanding.Also included in the distribution is a set of C++ wrapper functions.

THE BASIC LIBRARY FUNCTIONS

Written by: Philip Hazel

Email local part: ph10

Email domain: cam.ac.uk

University of Cambridge Computing Service,

Cambridge, England.

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Ogg Vorbis

FLAC Free Lossless Audio Codec

libogg

libvorbis

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LAME MP3 Encoder - lame.sourceforge.net

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Version 2, June 1991

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Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

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The executable is therefore covered by this License.Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not.Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library.

The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work.

(Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6.Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License.

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If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License.

Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library.

(It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it.

However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system.

Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

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This must be distributed under the terms of the Sections above.

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Version 2.1, February 1999

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For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you.

You must make sure that they, too, receive or can get the source code.

If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it.

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We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library.

Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program.

We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder.

Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License.

This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License.

We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library.

The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom.

The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License.

It also provides other free software developers Less of an advantage over competing non-free programs.

These disadvantages are the reason we use the ordinary General Public License for many libraries.

However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard.

To achieve this, non-free programs must be allowed to use the library.

A more frequent case is that a free library does the same job as widely used non-free libraries.

In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software.

For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow.

Pay close attention to the difference between a "work based on the library" and a "work that uses the library".

The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms.

A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language.

(Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it.

For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope.

The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it).

Whether that is true depends on what the Library does and what the program that uses the Library does.

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You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application.

Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole.

If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works.

But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

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To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License.

(If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.)

Do not make any other change in these notices.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library".

Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library".

The executable is therefore covered by this License.Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not.Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library.

The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work.

(Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6.Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License.

Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library.

(It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library.

A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it.

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libsamplerate

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Version 1.1

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Fraunhofer Institute for Integrated Circuits IIS

Attention: Audio and Multimedia Departments - FDK AAC LL

Am Wolfsmantel 33

91058 Erlangen, Germany

www.iis.fraunhofer.de/amm

amm-info@iis.fraunhofer.de

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