



Guide to the Print & Audio Module

Contents

- Introduction..... 3
 - Document Conventions..... 3
 - Digimarc Support..... 3
- Account Administration 4
 - Request an Account..... 4
 - Update Billing Information..... 4
 - Update Account Information..... 4
 - Account Roles and Permissions..... 4
 - Add Users to an Account..... 5
 - Work with Groups 5
- Create Digimarc Digital Watermarks for Connected Print 6
 - Adjust the Barcode Strength 8
- Create Digimarc Digital Watermarks for Audio..... 9
- Set up Digimarc Digital Watermark Details..... 12
- Organize Digimarc Digital Watermark Projects..... 14
 - Create Projects..... 14
 - Group Actions and Bulk Operations 14
- Reports..... 15
 - Digimarc Barcode Activity by Date 15
 - Top 10 Digimarc Barcodes 16
 - Activity by Digimarc Barcode..... 16
- Developers..... 17
 - Mobile SDK 17
 - Services API..... 17
 - Embedding SDK 17
- Glossary 18

Introduction

Digimarc digital watermarks carry user-encoded data, such as a web URL, to enhance digital media.

The Print & Audio Module is where you set up and manage digital watermarks for connected print and audio media. You'll find the Print & Audio Module at [My Digimarc](#), the central location to access your Digimarc applications.

Document Conventions

Following are the standards and conventions used in this documentation. See the Glossary for terms related to digital watermarking.

Convention	Description
Numeric format	The fractional part of a numeric value is represented by the period character, such as pi ≈ 3.14
Elements in the user interface	Formatting: Text in bold
Titles of panels and dialogs	Formatting: Text in italics
User input (text that a user types)	Formatting: Text in a monospace font
File and directory paths	Formatting: Text in a monospace font
Variables or variable data	Formatting: Text in italics, often within angle brackets (< >)

Tip

Tips provide helpful information.

Note

Notes bring additional information to your attention.

Warning

Warnings point out important information not to be overlooked.

Caution

Cautions point out critical information that could be detrimental or essential to success.

Digimarc Support

For help using the Print & Audio Module, contact support.

- [Digimarc Support Website](#)
- [Send email to Digimarc Support](#)

Account Administration

The following sections help you set up and manage your account and its roles, groups, and users.

Request an Account

If you're a new customer, follow the instructions below to request an account. If your organization already maintains a Print & Audio Module account, contact your account manager to be [added to the existing account](#).

- 1 Fill out the form at <https://www.digimarc.com/contact-us> to request an account, and then click **Submit**.
- 2 If you're eligible for an account, you'll receive an email with activation instructions. Click **Activate Account** to open the *Password Creation* page.
- 3 Enter and confirm your **Password**, agree to the *Terms of Use*, and then click **Create Password**.

Update Billing Information

If you have account manager credentials for your organization, you can add a credit card to your account to pay for barcode purchases. Payment details must be entered before you can purchase Digimarc digital watermarks.

- 1 From the top navigation bar, click **Billing > Billing Info**.
- 2 Enter your payment information.
- 3 Click **Save** to apply changes.


Update Account Information

Use the Account Information area to set default information.

- 1 From the top navigation bar, click **My Account > Account Settings**.
- 2 Enter the **Web Experience**, **Banner Headline**, **Strength**, and **Banner Image** to use as the default when creating a new Digimarc Barcode.
- 3 Select whether Audio Digimarc digital watermarks are expected to be used in loud environments.
- 4 Click **Update Information** to apply changes to the account.

Account Roles and Permissions

You assign roles to users based on what they need to do. To add users, see [Add Users to an Account](#).

- 1 From the top navigation bar, click **My Account > Account Members**. The *Account Members* page opens, listing each user on the account, their roles, and whether they also have Developer permissions.
- 2 To change a user's role, click **Edit** (). You must have Group Admin or Account Admin role to edit roles and permissions. Roles that can be assigned are:

Account Member

Members assigned to this role can create projects (walk-up accounts only), purchase and edit Digimarc digital watermarks, and embed them in image and audio files.

Account Admin

Members assigned to this role have all of the permissions of Account Members but also can enter billing information, add or remove account members, and change Account Settings. Each account can have multiple Account Admins.

Group Member

Members assigned to this role can create projects (walk-up accounts only), purchase and edit Digimarc digital watermarks, and embed them in image and audio files. Permissions can be assigned by a Group Admin.

Group Admin

Members assigned to this role have all of the permissions of Group Members. In addition, they can also assign permissions to members of the Group.

Developer

Members assigned the Developer role can request access to the Services API. Developers are responsible for managing this account's credentials for the Services API.

Permissions

Account members can have any combination (or none) of these permissions:

- **Edit:** Modify mobile user experience information and Digimarc digital watermark titles and descriptions.
- **Create:** Purchase new Digimarc digital watermarks.
- **Enhance:** Apply Digimarc digital watermarks to media files.


Add Users to an Account

If you have account manager credentials for your organization, you can invite others to your account.

- 1 From the top navigation bar, click **My Account > Account Members**.
- 2 Click **Invite others to join your account**. The *Invite User* dialog opens.
- 3 Enter the person's **Email Address, First Name, and Last Name**.
- 4 Click **Invite**. A message is displayed to confirm the invitation was sent and lists the next steps.
- 5 The new user receives an email with instructions for activating their account.

Work with Groups

The Group feature must be turned on by Digimarc. If Groups is turned on, account managers can create separate sections to group work together. A Group is a set of projects that can be accessed only by members of the Group. Members of other Groups can't see the set of work in any Group they don't belong to.

- 1 To view users within the Group, from the top navigation bar, click **My Account > Account Members**.
- 2 Assign users roles based on what they need to do. Click the **Edit** icon () to choose the appropriate role:
 - **Group Members** can create projects and purchase and edit Digimarc Barcodes, including processing image and audio files. A Group Member can view account members, but can't change them.
 - **Group Admins** have all of the permissions of Group Members. They can also assign packaging permissions to members of the Group. A Group Admin can invite others to join the account or Group. The default user role for an invited user is Group Admin.

Create Digimarc Digital Watermarks for Connected Print

Digimarc digital watermarks for connected print aren't used for packaging and don't contain GTIN information. This identifier is unique to Digimarc and can be read by apps that include Digimarc's Mobile SDK. When an image is uploaded, it's automatically enhanced with a digital watermark. Upload a final, print-ready TIFF or JPEG file (150 MB or less). Don't change or scale the image after it has been enhanced with a digital watermark because doing so could limit or prevent the image from scanning.

Note

The Print & Audio module supports transparency in TIFF files.

- 1 From the main page, click **New Digimarc Barcode**.
- 2 Click the **Barcode Type** drop-down and select **Print**.
- 3 If this watermark will be used for demonstration or testing purposes, enable **This will be a Demo Barcode**. Demo barcodes are marked with "Demo" in the file details window and in the list view.

1 Barcode Type

What type of Barcode would you like to create?

Print ▼

This will be a Demo Barcode

Demo Barcodes let you try before you buy. Your account has **54 available Demo Barcodes**.

BACK NEXT

- 4 Click **Next**.
- 5 Select the Project to add this Digimarc digital watermark to. If you were already in a project when you started, you can click **Use This Project**. To add the barcode to a different project, type the project's name in the search field.

2 Project

Use This Project
Default

- OR -

BACK NEXT

- 6 Click **Next**.
- 7 Enter the information for the new Digimarc digital watermark:
 - Click **Select Images** to select an image file from your system or drag and drop the file onto the icon.
 - **Digimarc Barcode Name** (required): Enter a name to help you easily locate this Digimarc digital watermark later. This name isn't visible to users scanning with a Digimarc-enabled mobile app.
 - **Web Experience URL**: Enter the URL you want this Digimarc digital watermark to connect to.


Note
 Digimarc Discover delivers this URL when Digimarc digital watermark is scanned. If the Digimarc-enabled mobile app doesn't link to this URL, it might not be using Digimarc's platform for web experiences. Contact the app developer if this occurs.

- **Banner Headline**: This is the text that will appear in the mobile app after the Digimarc digital watermark is detected. It can be up to 256 characters long.

Note
 Digimarc Discover displays this headline when Digimarc digital watermark is scanned. If the Digimarc-enabled mobile app doesn't display the headline, contact the app developer. Developers can choose whether the information entered in the Print & Audio Module is displayed in the user interface of their apps.

- **Description**: Enter a description that provides details about this Digimarc digital watermark. This is for your reference only and isn't shown to the mobile app users.

3 Details



hiking_in_OR.jpeg

Digimarc Barcode Name*

Web Experience URL


Banner Headline

Description

The enhanced file will be available for download for 30 days. After this time, the scanning service will continue uninterrupted but the source file will no longer be retained or available to download.

All purchases are nonrefundable


- 8 To enter multiple Digimarc digital watermark orders to the selected project, click **Add Another**. Another set of fields enables you to create additional digital watermarks as needed.
- 9 Click **Next** to continue.
- 10 To have your account charged on the annual renewal date automatically, enable **Turn on Auto Renew**.
- 11 Review the details of your Digimarc digital watermark. When you're satisfied everything is correct, click **Create**. A confirmation is displayed and the file is enhanced. When the enhancement is complete, you're offered the enhanced file to download.

- 12 Click **Download File** to save the enhanced image locally. You can also download the enhanced file from the project's page by positioning the cursor over the desired barcode and clicking the download icon ().



You can now test the enhanced image with common mobile devices and lighting environments. We recommend you print your image on a proofing device that's like the final output printer. Use the highest quality settings and print at 100% scale for the best results.

Tip

Use the free Digimarc Discover® mobile application to read the printed Digimarc digital watermark. You can find more information about Digimarc Discover, including download links, on the Digimarc Support Site ( <https://help.digimarc.com/articles/Digimarc-Discover-Supported-Operating-Systems-and-Devices>).

Adjust the Barcode Strength

If the Digimarc digital watermark is too visible or doesn't scan reliably, you can easily adjust the barcode strength to meet your needs.

To adjust the barcode strength:

- 1 From the project page, select the barcode to adjust.
- 2 Click the image thumbnail. The *Edit File* dialog opens.
- 3 Click + or - to adjust the Strength, and then click **Apply Digimarc digital watermark**. After it finishes processing, download and print your image for testing with common mobile devices and lighting environments.

Note

Adjusting the strength can affect how the image scans. Digital files might scan differently than the final printed result.

For more control when applying Digimarc digital watermark, use the Digimarc digital watermark Plug-in for Adobe Photoshop (macOS only). To download it, click **Products** > **Get Photoshop Plug-in** from the top navigation bar.

Create Digimarc Digital Watermarks for Audio

To apply Digimarc digital watermark to an audio file, upload a .wav, .mp3, or .m4a file (150 MB or less). Audio files with .m4a extensions must be encoded with the AAC-LC profile. The preferred file format is the .wav extension, which results in files with digital watermarks that can be read quickly and easily. The Print & Audio module requires source audio files with commonly used sampling rates of 44.1kHz or 48kHz and with 16- or 24-bits per sample.

- 1 From the main page, click **New Digimarc Barcode**.
- 2 Click the **Barcode Type** drop-down and select **Audio**.
- 3 If this barcode will be used for demonstration and testing purposes, enable **This will be a Demo Barcode**. Demo Barcodes are marked with “Demo” in the file details window and in the list view.
- 4 Click **Next**.

1 Barcode Type

What type of Barcode would you like to create?

Barcode Type

Audio

This will be a Demo Barcode
Demo Barcodes let you try before you buy. Your account has **247** available Demo Barcodes.

BACK NEXT

- 5 Select the **Project** to add this Digimarc Barcode to. If you were already in a project when you clicked **New Digimarc Barcode**, you can click **Use This Project** or use the **Search** function to find an existing project.

2 Project

Use This Project
Default

- OR -

Search for Projects

BACK NEXT

- 6 Click **Next**.
- 7 Enter the information for the new digital watermark:
 - Click **Select Audio** to select an audio file from your system or drag and drop the file onto the icon.

- **Digimarc Barcode Name** (required): Enter a title to help you easily locate this Digimarc digital watermark later. This title isn't visible to users scanning with a Digimarc-enabled mobile app.
- **Web Experience URL**: Enter the URL you want this Digimarc digital watermark to connect to.

Note
 Digimarc Discover delivers this URL when a digital watermark is scanned. If the app doesn't link to this URL, it might not be using Digimarc's platform for web experiences. Contact the app developer if this occurs.


- **Banner Headline**: This text appears in the mobile app after this Digimarc digital watermark is detected. It can be up to 256 characters long.

Note
 Digimarc Discover displays this headline when Digimarc digital watermark is scanned. If the app doesn't display the headline, contact the app developer. Developers can choose whether the information entered in the Print & Audio module is displayed in the user interface of their apps.

- **Description**: Enter a description that provides details about this Digimarc Barcode. This is for your reference only.

3 Details

Drag + Drop
or
Select Audio



Digimarc Barcode Name*
Web Experience URL

Banner Headline

Description

All purchases are nonrefundable

- To enter multiple Digimarc digital watermark orders to the selected project, click **Add Another**. Another set of fields enables you to create additional digital watermarks as needed.
- Click **Next** to continue.
- To be charged on the annual renewal date automatically, enable **Turn on Auto Renew** for your account.
- Click **Next**.
- Review the details of your Digimarc digital watermark. When you're satisfied everything is correct, click **Create**. A confirmation is displayed and the file is enhanced. When the enhancement is complete, you're offered the enhanced file to download.
- Click **Download File** to save the enhanced file locally. You can also download the enhanced file from the project's page by positioning the cursor over the desired barcode and clicking the download icon (📄).

You can now play back the enhanced file for testing with common mobile devices and in listening environments used by your audience.


Tip

Use the free Digimarc Discover® mobile application to test the Digimarc digital watermark. You can find more information about Digimarc Discover, including download links, on the Digimarc Support Site (<https://help.digimarc.com/articles/Digimarc-Discover-Supported-Operating-Systems-and-Devices>).

Set up Digimarc Digital Watermark Details

You can customize the mobile experience for users scanning with a Digimarc-enabled mobile app. Add a banner headline and text to provide a compelling consumer call to action prior to displaying the full web experience URL. The banner is displayed in the Digimarc Discover mobile application after a user scans your enhanced media.

- 1 Select the file you want to edit from the project list to open the *Details* dialog.



Digimarc Barcode Name*

Description


Payload ID

294725


Payload IDs are auto-generated and cannot be modified

Web Experience URL TEST

Auto Renew on 13 Apr every year
Your account will be charged at the time of renewal. This option can be cancelled at any time.



Banner Headline




Banner Text

CLOSE

SAVE

- 2 The *Details* window allows you to:
 - Edit the **Digimarc Barcode Name** and **Description**.
 - Edit the **Web Experience URL**. Type a mobile-optimized, web experience URL that consumers can visit after scanning.
 - View the **Payload ID**. The Payload ID is auto-generated and can't be changed, but you can enter it in the search field to quickly see what Account and Project the Payload ID belongs to and to go directly to the *Details* window for that entry.

 294



Cilantro Rice

294725

Digimarc

→ Default

- Edit the **Web Experience URL**.
- Click **Test** to see how the web experience and banner appear on a range of mobile devices. Open the Digimarc Discover app and aim your mobile device's camera at the blue test image.

- Toggle **Auto Renew** on or off. This automatically renews the use of this Digimarc digital watermark for an additional year whenever it is due to expire by charging the payment method on file.
- Edit the **Banner** details. Click the thumbnail next to the **Banner** information to change the artwork, or click the delete icon to remove the artwork completely. Enter the **Banner Headline** and **Banner Text** you want, and then click **Save**.

Organize Digimarc Digital Watermark Projects

A project can represent a package, set of packages, marketing campaign, or playlist – choose a naming convention that best suits your workflow. Each project contains one or more digital watermarks.

The Print & Audio module provides several options to help you find projects and digital watermarks in your account:

- From the top navigation bar, search for a project name or sort by **Modified Date**, **Creation Date**, **Name**, or **Count**.
- When working in a project, search for a Digimarc digital watermark name or sort by **Created Date**, **Start/End Date**, or **Name**.
- Filter by the status of your Digimarc Barcodes: **Live**, **On Hold**, **Expiring Soon**, or **Expired**.

Create Projects

Projects are most applicable for walk-up accounts; enterprise accounts have only one project. Walk-up accounts enable you to create Digimarc digital watermarks for digital image and audio files, whereas enterprise accounts enable you to create Digimarc digital watermarks for product packaging.

You must have administrative permissions to create a project. Contact your account owner if you need permission to access this functionality.

- 1 From the home page, click **+New Project**.
- 2 Enter the **Project Name** and **Project Description**.
- 3 If your account has Groups, you can select a **Group** to which to add the project. If your account has no Groups, you can navigate to the *Groups* page by clicking **Create one**.

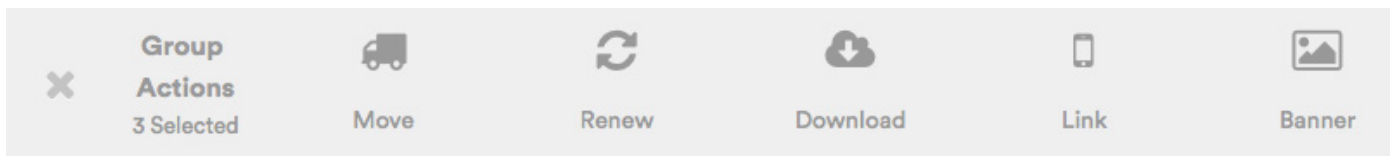
Note

The Group feature must be turned on by Digimarc. See [Work with Groups](#) for more information.

- 4 Click **Save**.

Group Actions and Bulk Operations

When working in a project, you can change multiple Digimarc digital watermarks at once. The Group Actions feature enables you to perform bulk operations on up to 20 selected Digimarc Barcodes. Click the check box next to one or several Digimarc digital watermark listings to open the Group Actions ribbon.



Choose from the following operations:

- **Move** the selected Digimarc digital watermarks to another project.
- **Renew** the expired (or expiring soon) Digimarc digital watermarks for an additional 12 months.
- **Download** the enhanced files for the selected Digimarc digital watermarks.
- **Link**: Set one web experience for all the selected Digimarc digital watermarks.
- **Banner**: Set one banner image or headline for all the selected Digimarc digital watermarks.

Reports

Digimarc can provide scan data for digital watermarks scanned with a Digimarc-enabled app, such as Digimarc Discover. These reports allow you to see the mobile scan activity for your Digimarc digital watermark projects:

- 1 From the top navigation bar, click **Reports**.
- 2 Select the **Project** that you want to report on, specify the date range, and then click **Generate Reports**.

< Reports

Today's Activity
 9 November 2018

11
 Total Scans

3
 Unique Users

Popular Today 3 Scans
Pole_Vaulter
http://player.vimeo.com/external/55335408.mobile.mp...

Project
2018 Chocolate

From
10 Oct 2018

To
09 Nov 2018

GENERATE REPORTS

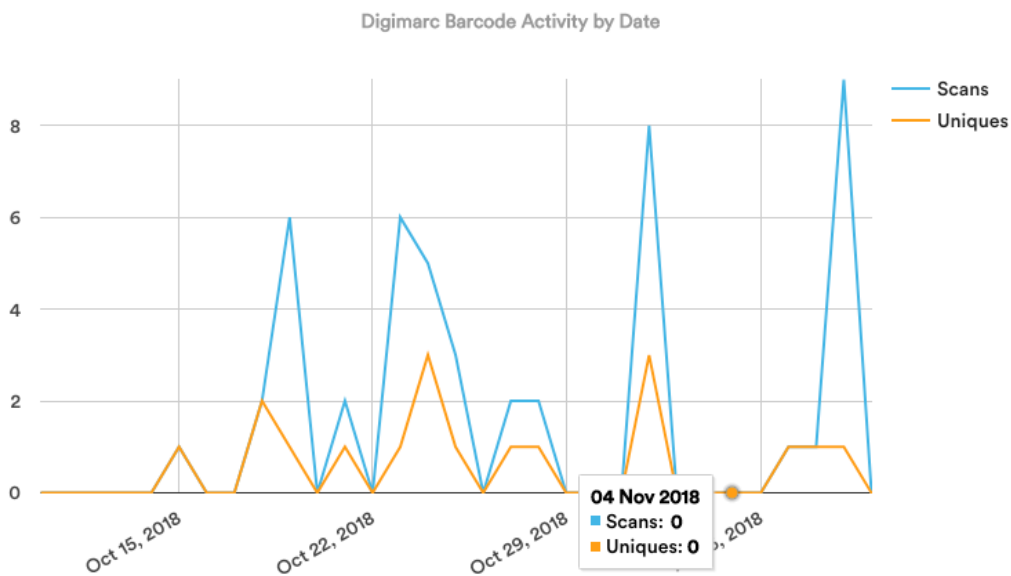
The report includes the following sections:

- [Digimarc Barcode Activity by Date](#)
- [Top 10 Digimarc Barcodes](#)
- [Activity by Digimarc Barcode](#)

The raw data for each section can be downloaded as a comma-separated values (CSV) file for further analysis.

Digimarc Barcode Activity by Date

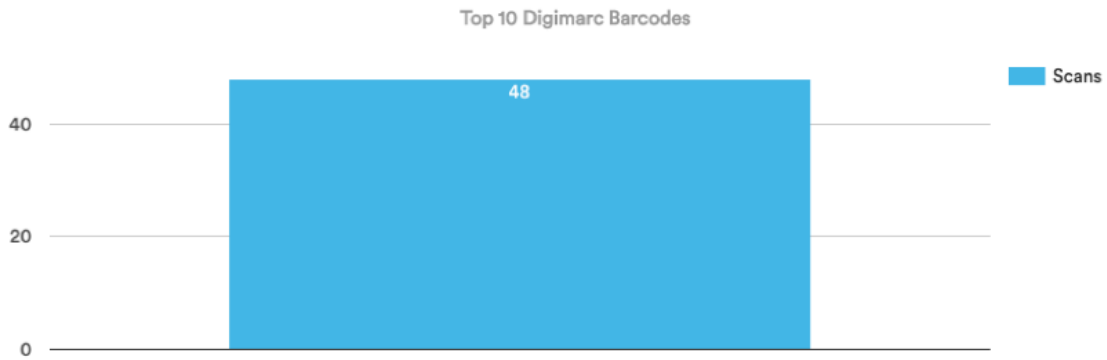
This report provides a chart of the scan activity for all individual Digimarc Barcodes (Digimarc digital watermarks) in the project (in aggregate) for the date range specified.



[Download Activity by Date CSV file](#)

Top 10 Digimarc Barcodes

This report shows the cumulative scans for each of the top 10 Digimarc Barcodes in the project for the date range specified.



[Download Top 10 Digimarc Barcodes CSV file](#)

Activity by Digimarc Barcode

This report provides a table of all Digimarc Barcodes in the project, listing the cumulative scans and unique device scans for each one.

	Digimarc Barcode	Digimarc Barcode Name	Type	Scans (48)	Unique (10)
1	355969	February Chocolate	Packaging	48	10

[Download Activity by Digimarc Barcode CSV file](#)

Developers

To access Digimarc's developer tools and documentation, navigate to the Developers tab from your account's home page.

Mobile SDK

For access to the Mobile SDK:

- 1 From the top navigation bar, click **Developer**.
- 2 Scroll down to the *Mobile SDK* section.
- 3 Click the **SDK Download** link for the desired operating system.
- 4 Click **Getting Started** for the desired operating system for the installation documentation. Click **SDK Documentation** to open the complete SDK reference.
- 5 Click **Create Mobile SDK User** to generate a license key for the mobile SDK.
- 6 Click **Key** for your mobile app to get the API key for use in your app.

Services API

To create API keys for accessing Digimarc's RESTful Services API and access interactive documentation:

- 1 From the top navigation bar, click **Developer**.
- 2 Scroll down to the *Services API* section.
- 3 Click **Request API Access**. The *Request Services API Access* dialog opens.
- 4 Click **Request**. The *Create a Support Ticket* page opens.
- 5 Fill in the requested information and submit it. A member of Digimarc's customer services team will contact you.

Embedding SDK

For access to the client embedder SDK:

- 1 From the top navigation bar, click **Developer**.
- 2 Scroll down to the *Embedding SDK* section.
- 3 Click the download button for the desired operating system.
- 4 Install the SDK and follow the instructions in the documentation for getting and setting the API key.

Glossary

artwork

The elements of design and text that makeup packaging, labels, or other visual media, in which a Digimarc digital watermark is or will be included.

barcode

The generic term for an optically machine-readable pattern that encodes data in a way that is generally not recognizable to human observation. Barcodes include one-dimensional symbols that encode data into a machine-readable pattern of adjacent, varying width, parallel, dark rectangular bars and pale spaces, and 2-Dimensional Symbols that encode data in the X and Y-axes (sometimes referred to as a 2D barcode), for example, in the case of a QR Code, Data Matrix, and Digimarc digital watermarks.

chroma

A signal used in image systems to convey the color information of a picture separately from luminance. Short for chrominance.

common payload model

A structured model for representing all types of Digimarc payloads. Commonly referred to by its acronym, CPM.

CPM path

A string of characters representing payload metadata that describes attributes of the Digimarc Barcode, prepended to the payload, used in encoding Digimarc Barcode, output from reading a Digimarc Barcode, and determining the payoff URL. The CPM path syntax is used throughout the Digimarc software stack, from encoding to decoding to resolving.

Digimarc Barcode

The Digimarc digital watermark.

Digimarc digital watermark

A novel data carrier that encodes data in media in ways that are generally imperceptible to people, permitting the carrier to be repeated many times over the surface of the Enhanced media. It delivers unprecedented ease of use, reliability, and efficiency in identifying the media due to massive mathematical and graphical redundancy.

digital watermark

In this guide, digital watermark refers specifically to the Digimarc digital watermark.

enhance

The process to integrate Digimarc digital watermark into a label or package artwork, enabling it for scanning.

enhancement

The result of creating and integrating a Digimarc digital watermark into product packaging and other substrates.

luma

The brightness in an image. Short for luminance. Luma is typically paired with chrominance, indicating the brightness at which colors are represented.

partition

Partitions provide a way to manage collections of users and limit service access to users of the same partition. Partitions are called Groups in the Print & Audio and Packaging modules.

payload

The binary representation of encoded data. It represents one of several methods of encoding data in the message carried in Digimarc Barcode, such as a GTIN. A payload is assigned to a service when it's created. The payload is embedded into a

digital media file for downstream recognition by suitably equipped applications. The payload is generally represented by a string ID.

payoff

The metadata associated with a Digimarc Barcode. Payoffs are user-defined through the Digimarc Print & Audio or Packaging module. A payoff is typically a URL representing a web experience for an end user who has detected the associated payload in digital media using a mobile application that incorporates the Digimarc SDK. A payoff, represented as a property of a service, is the data returned in response to a resolve request.

point of sale (POS)

The time and place where a retail transaction is completed. Also called Point of Purchase (POP).

process color

A color comprised of percentages of cyan, magenta, yellow, and black (CMYK) typically printed with halftone printing plates. A type of color model, similar to additive color, which involves “process” colors that are a combination of cyan, magenta, yellow, and black, or CMYK inks. Each process color is comprised of percentages of cyan, magenta, yellow, and black inks. Extended gamut includes additional colors, such as orange, green, and violet. From Pantone: achieving color in printing is referred to as CMYK, four-color process, 4/c process or even just process. To reproduce a color image, a file is separated into four different colors: Cyan (C), Magenta (M), Yellow (Y), and Black (K).

service

The online representation of metadata corresponding to a data carrier in the Digimarc Platform. Services are the central data structure in the Digimarc Platform, defined as extensible data containers that are bound to the encoded data value (payload). They have basic fields including name, description, and tags. More dynamic data, such as a URL response, can be stored and accessed by the resolver. The service is associated with the payload and CPM Path, which are then encoded into a data carrier. The data packet response from the resolver to a device is called the payoff.

services

The online representation of metadata corresponding to a data carrier in the Digimarc Platform. Services are the central data structure in the Digimarc Platform, defined as extensible data containers that are bound to the encoded data value (payload). They have basic fields including name, description, and tags. More dynamic data, such as a URL response, can be stored and accessed by the resolver. The service is associated with the payload and CPM Path, which are then encoded into a data carrier. The data packet response from the resolver to a device is called the payoff.

spot color

A color generated by an ink (pure or mixed) that is printed using a single run. This is different from a process color, which is produced by overlaying a series of dots on multiple impressions using different colors.

substrate

The base material to be printed on.

synchronization signal

The reference signal that facilitates detection and geometric registration of a Digimarc digital watermark. Also called a "grid."

tile

The fundamental unit of Digimarc digital watermarks, formed by combining an encoded message and Synchronization Signal in a two-dimensional area, which is repeated in whole or in part across artwork or a label.

validation

The process of checking that the data carried in Digimarc Barcode is both accurate and consistent. Also called verification.

validation point

The location in enhanced artwork that is designated for quality evaluation. The data validation process checks the GTIN carried in Digimarc digital watermarks, within an inspection area centered at this point, to determine whether the GTIN is correct and consistent with the GTIN in other areas and any 1D barcode in the artwork.

verification

The process of checking that the data carried in Digimarc Barcode is both accurate and consistent. Also called validation.

waxel

A spatial cell in a tile to which a component of a message and synchronization signal may be mapped. Waxel is short for "watermarking element." See "tile."

WPI

The resolution of a Digimarc digital watermark represented as waxels per inch.

Group

A Group is a set of projects that can be accessed only by members of the Group.