Packages in the MapleCloud

▼ MapleCloud Packages

Expand your possibilities with new add-on packages from the MapleCloud!

The MapleCloud can now store package workbooks. You can browse, download and install user-created packages directly from the MapleCloud in order to add new functionality to Maple.

To open the MapleCloud window, go to **Tools** -> **MapleCloud** or click on any of *Public Documents, Math Apps, Packages*, or *Updates* from under the MapleCloud icon in the main toolbar; you can also open your private cloud documents from this menu.

Updates: Maple Cloud Icon on the Maple Toolbar

On the main worksheet toolbar, there is a new MapleCloud icon. When clicked, a drop-down menu is shown that can be used to log in to your account, making it possible to store or access your personal content in the MapleCloud. This menu can also be used to open the MapleCloud window, to adjust network settings or to manage groups.

To install a new package, simply click on the install button in the *Actions* column. Maple will automatically download and install the package to your Maple toolbox folder, no further steps required. If the package has any associated help documentation, this is also unpacked to your toolbox folder.

▼ Uploading Content to the MapleCloud

The upload to cloud dialog has been updated for package workbooks to make it possible to include more metadata with submissions. When uploading a new package workbook to the MapleCloud, properties such as language, authors, tags, description, package title, thumbnail and additional images can be added to the package workbook.
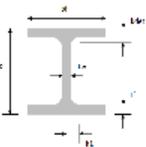
Note: Make sure to save your local copy of your content after upload. Any added

metadata specified in the upload dialog is added to the local copy, but is not automatically saved.

▼ Authoring Packages

As a package author, the new packages group in the MapleCloud makes it easier than ever to share your work with Maple users around the world.

PackageTools is a new package with programmatic tools for authoring and editing packages.

```
> with(PackageTools);
```

$[AddAttachment, Create, GetModules, GetProperty, Install, IsPackageInstalled,$
$\quad ListInstalledPackages, SetProperty, SupplyPassword, Uninstall]$

▼ Example: Programmatically Creating a New Package Workbook

To begin, the Create command creates a new empty workbook in the designated location:

```
> Create("C:/tmp/NewPackage.maple"):
```

Having created a new workbook or when working with existing workbooks, it is possible to add attachments, such as help files, images and more using the AddAttachment command.

```
> AddAttachment("C:/tmp/NewPackage.maple", cat(kernelopts
  (datadir), "/images/start/Folder_default.png"));
```

In order to make a workbook into a package, the workbook must contain a saved module.

```
> NewPackage := module()
    option package;
    export out := () -> "Hello World!";
  end module:
  NewPackage:-out();
```

$$"Hello World!"$$

In order to save an existing module into a workbook, use the savelib command:

```
> savelib('NewPackage', "C:/tmp/NewPackage.maple");
```

▼ Modifying Properties of a Workbook

After a package workbook has been created, it can be shared on the MapleCloud. An important part of sharing the package workbook is to include metadata that describes the package. This metadata can be added during the upload using the updated upload dialog or can also be added (or modified) using the GetProperty and SetProperty commands.

To set the authors of a workbook:

```
> SetProperty("C:/tmp/NewPackage.maple", "authors",
  "Maplesoft"):
```

To get the value for authors:

```
> GetProperty("C:/tmp/NewPackage.maple", "authors");
```

$$"Maplesoft"$$

Note: If you modify properties of a package that has already been uploaded to the MapleCloud, it is important to update the package in the MapleCloud after making local changes, otherwise those changes will not automatically be pushed to the online version.

▼ **More Updates: MapleCloud Palette**

The MapleCloud Palette has been turned off by default. The new MapleCloud window is now the default way of interacting with content stored in the MapleCloud. The MapleCloud palette can be manually re-enabled.

The following changes have been made to the context menu for the MapleCloud palette:

• The packages group now features an **Install Package** menu item; this installs the selected package to your Maple toolbox folder.

• The **Share** context menu item has been changed to **Copy shareable link** - this copies a link to the website where the content can be viewed.

• The **Share with public** context menu item has been removed.

• There is a new context menu item for **Revoke shareable link** - this revokes any existing keys for private content.