MotionDesk

Custom Object Library Management

For MotionDesk 4.8

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dSPACE

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How to Contact dSPACE Support

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- For countries not listed, contact dSPACE GmbH in Paderborn, Germany.
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You can also use the support request form: http://www.dspace.com/go/supportrequest. If you are logged on to mydSPACE, you are automatically identified and do not need to add your contact details manually.

If possible, always provide the relevant dSPACE License ID or the serial number of the CmContainer in your support request.

Software Updates and Patches

dSPACE strongly recommends that you download and install the most recent patches for your current dSPACE installation. Visit http://www.dspace.com/go/patches for software updates and patches.

Important Notice

Contents

About This Document

Contents

This documentation introduces you to handling the custom object library to use customized 3-D objects in MotionDesk.

Symbols

dSPACE user documentation uses the following symbols:

Symbol	Description
DANGER	Indicates a hazardous situation that, if not avoided, will result in death or serious injury.
WARNING	Indicates a hazardous situation that, if not avoided, could result in death or serious injury.
CAUTION	Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates a hazard that, if not avoided, could result in property damage.
Note	Indicates important information that you should take into account to avoid malfunctions.
Tip	Indicates tips that can make your work easier.
	Indicates a link that refers to a definition in the glossary, which you can find at the end of the document unless stated otherwise.
	Precedes the document title in a link that refers to another document.

Naming conventions

dSPACE user documentation uses the following naming conventions:

%name% Names enclosed in percent signs refer to environment variables for file and path names.

< > Angle brackets contain wildcard characters or placeholders for variable file and path names, etc.

Special folders

Common Program Data folder A standard folder for application-specific configuration data that is used by all users.

`%PROGRAMDATA%\dSPACE\<InstallationGUID>\<ProductName>`

or

`%PROGRAMDATA%\dSPACE\<ProductName>\<VersionNumber>`

Documents folder A standard folder for user-specific documents.

`%USERPROFILE%\Documents\dSPACE\<ProductName>\<VersionNumber>`

Local Program Data folder A standard folder for application-specific configuration data that is used by the current, non-roaming user.

`%USERPROFILE%\AppData\Local\dSPACE\<InstallationGUID>\<ProductName>`

Accessing dSPACE Help and PDF Files

After you install and decrypt dSPACE software, the documentation for the installed products is available in dSPACE Help and as PDF files.

dSPACE Help (local) You can open your local installation of dSPACE Help:

- On its home page via Windows Start Menu
- On specific content using context-sensitive help via **F1**

dSPACE Help (Web) You can access the Web version of dSPACE Help at www.dspace.com/go/help.

To access the Web version, you must have a *mydSPACE* account.

PDF files You can access PDF files via the  icon in dSPACE Help. The PDF opens on the first page.

Basics and Instructions

Where to go from here

Information in this section

Basics of the 3-D Library Manager

Introduction

To import, export, edit and preview 3-D objects.

Features of the 3-D Library Manager

Using the 3-D Library Manager, you can manage and organize the custom objects library. The 3-D Library Manager provides a wide range of features:

- Importing 3-D objects in COLLADA, VRML2, or a MotionDesk export format
- Importing 3-D object material texture files in TIF and TGA files
- Reusing 3-D objects from the dSPACE objects library
- Exporting 3-D objects to a file in MotionDesk export format
- Specifying default values for 3-D objects
- Specifying 3-D previews of the 3-D objects
- Grouping 3-D objects
- Assigning keywords to 3-D objects
- Filtering the Library Browser by object name or keyword

You can reuse the objects in the dSPACE 3-D object library. This includes a range of road, scenery, and vehicle objects that can be added to a MotionDesk scene. The vehicles include specific models of Mercedes, BMW, Volkswagen, and NCAP global vehicle targets (GVT). Lorries, trailers, and roadside assistance and emergency service vehicles are also included. You can assign a motion data stream from the simulation to the objects. For more information, refer to Setting up Movable Objects (MotionDesk Scene Animation 🕮).

If you have the animated characters license, you can also use the animated characters from the library, for example pedestrians, children, cyclists, wheelchair users, and animals. The movement and speed of the animated characters is synchronized with the ASM maneuver simulation. For more information on animated characters, refer to Basics of Using Animated Characters in the Scene (MotionDesk Scene Animation 🕮).

File format

The following file formats are available in the 3-D Library Manager:

Content Type	Description
COLLADA	COLLADA (Collaborative Design Activity) is an interchange file format for interactive 3-D applications. The file name extension is *.dae (digital asset exchange). Starting from MotionDesk 3.0, COLLADA is the standard file format of 3-D objects.
VRML2	VRML2 (Virtual Reality Modeling Language) is a file format for representing 3-D interactive vector graphics. The file name extension is *.wrl. VRML2 was the standard format of 3-D objects in MotionDesk before MotionDesk 3.0.

Content Type	Description
MotionDesk export	A dSPACE file format for interchanging files. The file name extension is *.mtx.
TIFF & TARGA	A TIFF file with the *.tif extension and TARGA file with the *.tga store graphics data in a compressed format. They include header and image geometry data. Pixels in the image data are assigned to materials in the `MaterialMapping.xml`. For more information, refer to Basics on Material Management (Sensor Simulation Manual 🕮).

Workflow

The **3-D Library Manager** enables you to:

1. Import objects

   The **Import Objects** dialog supports the import of COLLADA, VRML2, TIFF and TARGA graphics files, and MotionDesk export files. Refer to How to Import Objects into the Custom Objects Library on page 13.
2. Specify default values

   You can specify the default values of the properties and a preview for the objects. Refer to How to Specify Default Properties and the Preview on page 16.
3. Group objects

   You can group objects so that you can use them together in the scene. Refer to How to Group Objects on page 17.
4. Export objects

   You can export files with their object properties. Refer to How to Export Objects from the Custom Objects Library on page 18.

Related topics

Basics

Basics on Material Management (Sensor Simulation Manual 🕮)

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How to Start the 3-D Library Manager

Objective

The 3-D Library Manager lets you manage the custom object library.

Basics

It is not necessary to have a MotionDesk project open to work with the 3-D Library Manager.

The custom object library is independent of MotionDesk projects. It is created on the PC where MotionDesk is installed. The location of the library can differ for each user of the PC. For details, refer to 3-D Object Libraries (MotionDesk Scene Creation 🕮).

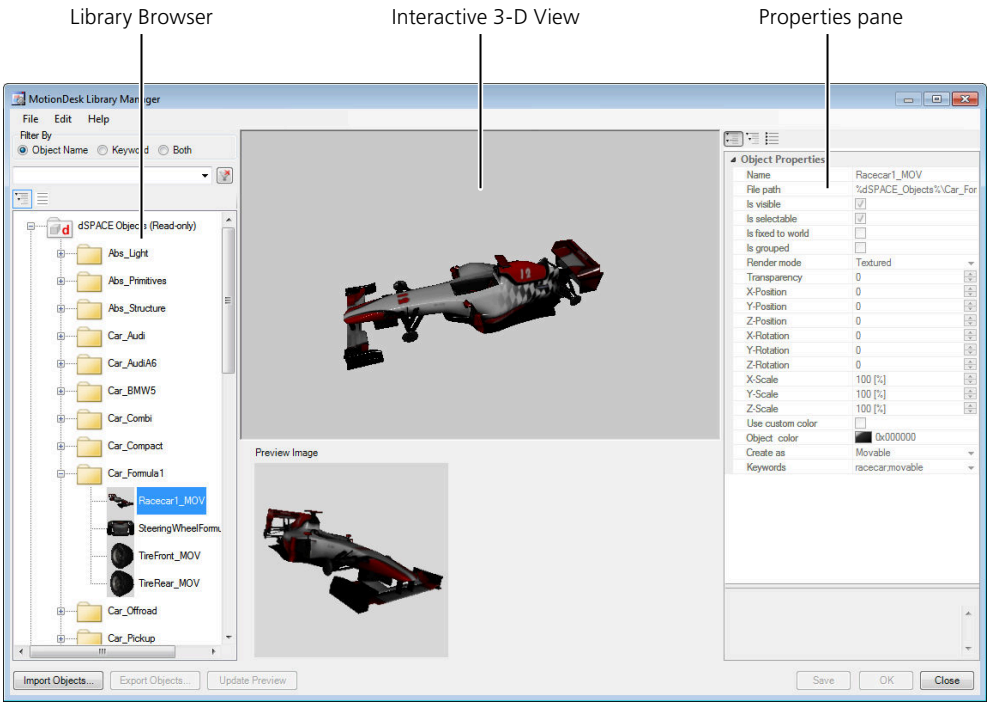
Method

To start the 3-D Library Manager

1. Start MotionDesk.
2. To locate the custom object library, perform the following steps:
   - On the File ribbon, click Options.
     The MotionDesk Options dialog opens.
   - In the dialog, click the Visualization tab.
     Customer objects path displays the path of the custom object library.
   - Click OK to close the dialog.
3. On the Home ribbon, click 3-D Library – Manage.

Result

The 3-D Library Manager opens.



Related topics

Basics

3-D Object Libraries (MotionDesk Scene Creation 🕮)

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How to Work with the Library Browser

Objective

The Library Browser is used to access 3-D objects from the dSPACE objects library or custom objects library.

You can enable/disable the hierarchical view or filter the objects in the Library Browser to work more efficiently.

Views in the Library Browser

The Library Browser provides different views of objects. You can switch between the following options:

- Hierarchical view: A folder-based view of objects
- Flat view: A flat view of objects

Filtering

You can filter the objects that are displayed in the Library Browser. The filter string can be used on the object or folder names, keywords, or both.

Possible methods

The Library Browser supports different tasks:

- To define the view of the library, refer to Method 1 on page 11.
- To filter objects, refer to Method 2 on page 12.

Method 1

To define the view of the Library Browser

1 To switch between the Hierarchical and Flat view, open the context menu of the object browser and select HierarchicalView.

You can also use buttons:

- Click to set the Hierarchical view.
- Click  to set the Flat view.

Method 2

To filter objects

1. In the Filter By section, select a category to apply a filter to Object \Folder Name, Keyword or Both.
2. Enter the filter term in the edit field.

   The object names, folder names, or keywords that match the filter term are listed. Click one of the entries to use it as filter term. Otherwise the entered filter term is used.

   The Library Browser displays only objects that match the filter term and objects that are in a folder that match the filter term.
3. To remove the filter, click  .

   The Library Browser again displays all the objects in the libraries.
4. You can also select a term from the list of previously used filters by clicking the edit field arrow.

Result

The MotionDesk Library Manager is organized as you require.

Related topics

References

Library Browser.....30

How to Change the Location of the Custom Objects Library

Objective

The custom object library is saved in a folder specified during the first start of MotionDesk. If you want to specify another folder, you can use the library configuration tool.

Basics

In MotionDesk, two kinds of object libraries are available: a dSPACE objects library and a custom objects library. The dSPACE objects library is read-only and you cannot modify its installation folder. You can modify the custom objects library, which is placed in a folder on the host PC. The folder is selected during installation and can be changed afterwards. Thus, PC users can either all use the same custom objects library or create their own libraries.

Limitations

- The folder of the custom objects library must not have a subfolder with the name "MD3DLib". This subfolder was used to distinguish between standard dSPACE objects and custom objects in MotionDesk 2.2 and earlier.

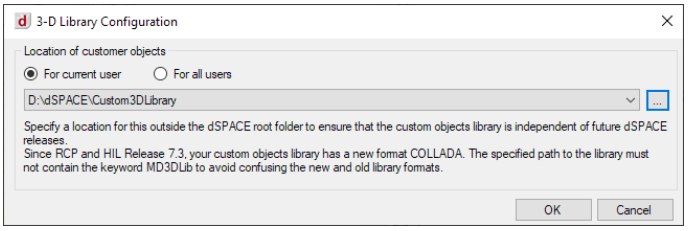
- The length of the file names with their paths of custom objects is restricted to 255 characters. You should therefore use a short name for the folder of the custom objects library.

Method

To change the location of the custom object library

1 In the Start menu, select Programs – dSPACE MotionDesk <release> – dSPACE 3-D Library ConfigurationTool <release>.

The 3-D Library Configuration dialog opens.



2 Select For current user or For all users.

3 Click the Browse button to open a standard Browse For Folder dialog.

4 Specify a new folder.

5 Click OK to confirm your settings.

Result

The custom objects library is in a new folder.

Related topics

References

Visualization Options Page (MotionDesk Scene Animation 🕮)

How to Import Objects into the Custom Objects Library

Objective

You can import 3-D objects into the custom objects library to create scenes with them.

Basics

The following file formats are supported:

- COLLADA (*.dae)
- VRML2 (*.wrl)
- MotionDesk export (*.mtx).

For basic information on importing files, refer to Import Objects on page 27.

Limitations

Note the following limitations when importing objects:

- VRML files containing VRML prototypes (for example, `Arrow.wrl` or `PointLight.wrl` from previous releases) cannot be processed by the Library Manager and must therefore not be imported.
- COLLADA files that contain animation are not supported and must not be imported.
- MotionDesk can import COLLADA files of the 1.4 specification.
- The length of the file name with their path of custom objects is restricted to 255 characters. An import fails if the length exceeds this limit.

Preconditions

The 3-D Library Manager is open, refer to How to Start the 3-D Library Manager on page 9.

Method

To import objects into the custom objects library

1. Click Import Objects.
   The Import Object Configuration dialog opens.
2. Click Select Files or Select Folder.
   A Windows dialog for file/folder selection opens.
3. Select the file(s) or folder(s) you want to import and confirm your selection. The objects are listed in the Configure Objects table with the selected file path and file name.
   If you import folders, you can activate the Import recursively and the Retain folder structure functionality. Enable Import recursively to import all objects of the selected folder and its subfolders. You can then enable the Retain folder structure option to get the same folder structure for all objects or disable it to import each object in the root folder of the custom objects library.
4. To assign keywords to the object you want to import, click the arrow of the keyword entry field. A dialog for handling keywords opens.
5. Click the entry field next to the magnifier to assign existing keywords.
6. Enter a string in the search edit field. The keywords matching the string are listed below the entry field.
   Select one or more keywords by clicking them. To assign selected keywords to one selected object, click Apply.
   To assign keywords to several objects, click Apply to All Selected.
   The keyword assign dialog closes.
7. To add a new keyword, open the dialog for handling keywords and enter the keyword in the edit field next to the Add button. Click Add.
8. Click Apply to confirm the selection of keyword(s).
   To assign selected keywords to all objects listed in the Configure Objects table, click Apply To All Selected.
9. To exclude a file from the import, clear its checkbox in the select column.

10 Start the import by clicking **Import Selected**.
The **Progress**, the **Result** notification and the **Logs** are updated.

Result

The imported objects are now available in the custom objects library and can be used for creating scenes.

Related topics

HowTos

How to Export Objects from the Custom Objects Library..... 18

How to Assign Keywords to Objects

Objective

Assigning keywords makes them easier to find.

Basics

You can assign keywords in the keyword cell of the **Object Properties** category in the MotionDesk Library Manager. The keywords assigned to an object in the library are not assigned to objects that are already used in a scene.

Preconditions

You have selected an object in the MotionDesk Library Manager.

Method

To assign keywords to objects

1 To enter a keyword, click into the value field of the **Keywords** property.

2 To assign a new keyword, enter the keyword in the value field. You can assign several keywords to one object by separating them with *semicolons*.

3 To select an existing keyword, click the arrow next to its value cell. A list of all already assigned keywords is displayed. Press **Enter** and **Save** to apply the keywords.

4 To filter the keywords on the list, enter a string in the edit field next to the magnifier. The list is updated and only keywords that match the string are displayed.

5 To apply a keyword, activate it in the list by clicking it. You can activate several keywords. Then click **Apply**. The keywords are listed in the object's properties.

Note

You can assign keywords during the import process or at any time in the Library Browser. For detailed information on assigning keywords during the import process, refer to How to Import Objects into the Custom Objects Library on page 13.

Result

You have assigned keywords to an object.

Related topics

Basics

Basics of the 3-D Library Manager 8

How to Specify Default Properties and the Preview

Objective

In the 3-D Library Manager, you can specify the default values of custom objects by editing their properties. Editing the default properties changes the initial appearance of an object when inserted in a scene. You then have to update the preview of the object.

Preconditions

You have opened the 3-D Library Manager.

Method

To specify default properties and the preview

1. In the 3-D Library Manager, left-click the object in the Library Browser you want to define the default properties for. The preview of the object opens. The **Object Properties** pane is filled with the default values of the object's properties.
2. To edit a default value of an object, click its property value field.
3. Enter the new default value in the property value field. For details of the properties, refer to Object Properties Window on page 35.
4. Confirm your entry by clicking **Enter**. The new property value is displayed with all other default property values.
5. Click **Save** to save your settings.

   After you have changed the default values of the object, you can update the preview of the object. The preview shows the object in MotionDesk.
6. Change the preview as you like.
   - To zoom into a 3-D object in the preview, right-click and pull the mouse.

- To zoom out of an object, right-click and push the mouse.
- To rotate an object in the **3-D View**, click the object and move the mouse to change the perspective.

  For constant object rotation, click the object, move the mouse quickly in the direction you want the object to rotate in, and release the mouse button.
- To move an object vertically, left- and right-click it and move the mouse vertically while holding both mouse buttons pressed.
- To move an object horizontally, left- and right-click it and move the mouse horizontally while holding both mouse buttons pressed.

7 To define a new preview, click **Update Preview**.

The new preview of the object is displayed in the **Preview Image** section of the **3-D Library Manager**. The object is represented in the software by the updated preview.

Result

You have defined new default values for an object and updated its preview.

Related topics

Basics

Basics of the 3-D Library Manager 8

References

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Object Properties Window 35

How to Group Objects

Objective

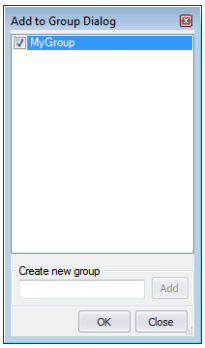
You can group objects to use them together when you create a scene.

Method

To group an object

1 In the object browser, right-click the object you want to group. From the context menu, select **Add to Group**.

The Add to Group Dialog opens.



2 To add a new group, enter a group name in the edit field. Click Add to confirm the creation of the new group. The new group is listed in the Add to Group Dialog and automatically selected. It is also listed in the hierarchical view of the Library Browser.

3 Select a group/groups and click OK to add the object to it/them.

Result

The objects are grouped.

Related topics

Basics

Basics of the 3-D Library Manager 8

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Library Browser 30

How to Export Objects from the Custom Objects Library

Objective

3-D objects imported by one user can be saved to a file and used on another PC with all their properties and relative locations.

Basics

Objects are exported with the MotionDesk Library Manager. Exported files are saved in the MotionDesk export format (MTX file). Several objects selected for export are saved in one MTX file.

Tip

You can use this feature to write the contents of a PC's custom object library to a file and import the 3-D objects to another custom object library on another PC.

Preconditions

The MotionDesk Library Manager has to be open and must contain custom objects.

Method

To export objects from the custom object library

1. Select the object(s) you want to export in the Library Browser.
2. Open the context menu and select **Export Objects**.
   The **Save as** dialog opens.
3. In the **Save as** dialog, select a location for the file.
4. Enter a name for the export file. You cannot change the **Save as type** because there is only one file format available.
5. Start the export process by clicking **Save**.

Result

You have exported objects.

Related topics

HowTos

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Reference Information

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MotionDesk Library Manager Commands

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3-D Library Manager

Access

You can access this command via:

Ribbon	Home – 3-D Library
Context menu of	None
Shortcut key	None
Icon	

Purpose

To start the 3-D Library Manager.

Description

Using the 3-D Library Manager, you can import 3-D objects into the custom objects library and manage them.

Related topics

HowTos

How to Start the 3-D Library Manager 9

Copy

Access

You can access this command via:

Menu bar	Edit
Context menu of	Item in the list
Shortcut key	**Ctrl+C**
Icon	None

Purpose

To copy the current selected object to the Clipboard.

Result

The object is available via the Clipboard.

Related topics

References

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Cut

Access

You can access this command via:

Menu bar	File
Context menu of	Item in the list
Shortcut key	**Ctrl+X**
Icon	None

Purpose

To cut the current selected object to the Clipboard.

Result

The object is available via the Clipboard.

Related topics

References

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Delete

Access

You can access this command via:

Menu bar	Edit
Context menu of	Item in the list
Shortcut key	**Delete**
Icon	None

Purpose	To delete the current object.
Result	The object is deleted from the library.
Description	Unlike the **Cut** command, the selection is not placed in the Clipboard for further use.
Related topics	References Cut....24

Exit

Access

You can access this command via:

Menu bar	File
Context menu of	None
Shortcut key	None
Icon	

Purpose	To exit the current MotionDesk Library Manager session.
Result	The MotionDesk Library Manager ends the current session.
Description	If you have edited files in the MotionDesk Library Manager, you are prompted to save them before exiting.

Export Objects

Access

You can access this command via:

Menu bar	File
Context menu of	Library Browser
Shortcut key	None
Icon	None
Others	Export Objects button in the MotionDesk Library Manager window

Purpose

To export the selected objects to a file.

Description

A standard Save As dialog opens. Select a location and a name for the export file. All selected custom objects are saved in this file in the MotionDesk export format. You can import these custom objects to another custom object library.

Result

The selected objects are saved in a file.

Related topics

HowTos

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Help

Access

You can access this command via:

Menu bar	None
Context menu of	None
Shortcut key	**F1**
Icon	None

Purpose

To open MotionDesk Library Manager's online help in dSPACE Help and get context-sensitive help for a button, command or window.

Result

The online help for currently selected item opens.

Import Objects

Access

You can access this command via:

Menu bar	File
Context menu of	Library Browser
Shortcut key	Ctrl+O
Icon	None
Others	Import Objects button in the MotionDesk Library Manager window

Purpose

To import objects to the MotionDesk Library Manager.

Result

The Import Object Configuration dialog opens for you to import objects.

Dialog settings

Select Files Opens a File Open dialog to select the object files for the import. In the dialog you can select one or more object files in the COLLADA (*.dae), VRML2 (*.wrl) or MotionDesk export (*.mtx) format.

Select Folder Lets you open a standard Browse for Folder dialog to import objects from a folder.

You can import the content of folders recursively by activating the Import recursively option. Enable the Retain folder structure option to get the same folder structure as it is in the source location. Disable the Retain folder structure option to import the object in one folder, the customer objects root location.

Configure Objects Lets you view/edit the configuration of the imported object files. It has the following columns.

Option	Description
Select	Lets you include the file in the selection of files to be imported. The import itself is started by clicking Import Selected after selecting the files.
File Name	Displays the list of file names to be imported.

Option	Description
Source Path	Displays the location of the files to be imported.
Destination Path	Displays the path of the folder after import. You can change the path by clicking the Browse button. Lets you specify a subfolder for the files to be imported. By default the files are imported to the customer objects root folder (indicated %Customer_Objects%). You can specify a subfolder under %Customer_Objects%.
Keyword	Lets you edit the object's keywords by clicking their drop-down arrows. You have the following options: ▪ To find a keyword, enter a string in the search edit field. ▪ To assign an existing keyword, select one or more displayed keywords. ▪ To add a new keyword, enter it in the Create new keyword edit field and click Add. ▪ To confirm the selection of keyword(s), click Apply. ▪ To assign selected keywords to all selected objects listed in the Configure Objects table, click Apply To All Selected.
Result	Displays the state when the objects are imported: ▪ Not started ▪ Canceled ▪ Succeeded ▪ Failed
Progress	Displays the progress of the import as a percentage.

Select All Selects all objects listed in the table.

Select None Clears all objects listed in the table.

Log Displays or hides the log messages.

Import Selected Starts the import of the selected objects.

Cancel import Cancels the import of the objects.

Clear Finished Clears the display of already imported objects in the Import Object Configuration window.

Close Closes the Import Object Configuration window.

Logs Displays the results of import procedures.

Related topics

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How to Import Objects into the Custom Objects Library..... 13

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Interactive 3-D View

Access

You can access the 3-D View via:

Menu bar	None
Context menu of	None
Shortcut key	None
Icon	None
Window	MotionDesk Library Manager (Initial)

Purpose

To view objects in the MotionDesk Library Manager in various perspectives and the impact of changes on their object properties.

Result

Shows a three-dimensional (3-D) view of the selected object. The object can be moved, zoomed in/out, rotated and scaled.

View options

The 3-D View offers a variety of view options:

Zooming in/out To zoom an object, right-click the object and drag the object.

To zoom out of an object, right-click and push it.

Rotating an object To rotate an object in the 3-D View, click it and move the mouse to change the perspective.

For constant object rotating, click the object, move the mouse quickly to the direction you want the object to rotate in and release the mouse button.

Moving an object To move an object, hold both mouse buttons pressed and move the mouse.

Related topics

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How to Specify Default Properties and the Preview..... 16

Library Browser

Access

You can access the Library Browser via:

Ribbon	View – Controlbar – Switch Controlbars
Context menu of	None
Shortcut key	None
Icon	None
Window	MotionDesk Library Manager (Initial)

Purpose

To select 3-D objects for further actions.

Result

3-D objects are found and selected for further actions.

The Library Browser options

The Library Browser offers the following view options:

Filter options Filters reduce the number of displayed 3-D objects so that finding 3-D objects is less time-consuming. 3-D objects are filtered by a string entered in an edit field. The Filter By option bar provides the following filter options:

Filter By	Description
Object \ FolderName	Filters the list of 3-D objects by a specified string. Names of 3-D objects and folder that match the string are listed.
Keyword	Filters the list of 3-D objects by a specified string. Keywords of 3-D objects that match the string are listed.
Both	Filters the list of 3-D objects by a specified string. Only 3-D objects whose names or keywords include the string are listed.

Additional Filter Elements	Description
Edit field	Lets you enter the filter string. If more than 2 characters are specified, 3-D objects containing the specified characters are listed.
Drop-down arrow	Lists all previously entered filter strings.
	Displays all available 3-D objects without filtering.

Objects View The Objects View displays the available filtered/unfiltered 3-D objects. The 3-D objects are represented by their thumbnail preview and their file names. The Objects View can be hierarchical or flat. You can toggle between

the views with the **Hierarchical View** command of the **Objects View's** context menu or using the (hierarchical view) and (flat view) buttons.

Related topics

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Preview Area

Access

You can access the **Preview Area** via:

Menu bar	None
Context menu of	None
Shortcut key	None
Icon	None
Window	**MotionDesk Library Manager** (Initial)

Purpose

To define the preview of an object.

Result

The defined preview (for example, its thumbnail in the Library Browser) of an object represents it in MotionDesk. To display the preview, point the mouse pointer to the object's thumbnail without clicking.

Preview Area Options

The object preview window offers the following view options:

Update Preview Sets the image which is currently displayed in the **Interactive 3-D View** as the preview image for the object.

Save Saves the object properties if object properties have been changed. The dialog remains open after saving the properties.

OK Saves the object property changes and close the Library Manager window.

Close Closes the MotionDesk Library Manager without saving the changes to the object properties.

Related topics

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Paste

Access

You can access this command via:

Menu bar	Edit
Context menu of	Custom objects or any subfolder in the Library Browser window in the hierarchical view mode
Shortcut key	Ctrl+V
Icon	None

Purpose

To paste the Clipboard contents into the current location.

Description

You can paste a 3-D object in the root folder or any subfolder of the custom objects library. It is not possible to paste a 3-D object in the dSPACE objects library nor in grouped objects.

Result

The content of the Clipboard is added to the current window.

Related topics

References

Copy 23
Cut 24

Rename

Access

You can access this command via:

Menu bar	Edit
Context menu of	Custom objects in the hierarchical view mode

Shortcut key	**F2**
Icon	None

Purpose

To change the name of the selected custom object.

Result

An edit filed opens for you to rename the object.

Related topics

HowTos

How to Specify Default Properties and the Preview..... 16

MotionDesk Library Manager Properties

Where to go from here

Information in this section

Child Properties

Purpose

To specify property values for grouped objects.

Description

The child property values are displayed in the **Object Properties** window of objects that are used in a group.

Properties

Name Lets you specify the name of the child object of the selected grouped object.

X-Offset Lets you specify the offset of the object in the x direction in meters.

X-Rotation Lets you specify the rotation of the object around the x-axis in degrees.

X-Scale Lets you specify the scaling factor in its x direction.

Y-Offset Lets you specify the offset of the object in the y direction in meters.

Y-Rotation Lets you specify the rotation of the object around the y-axis in degrees.

Y-Scale Lets you specify the scaling factor in its y direction.

Z-Offset Lets you specify the offset of the object in the z direction in meters.

Z-Rotation Lets you specify the rotation of the object around the z-axis in degrees.

Z-Scale Lets you specify the scaling factor in the object's z direction.

Related topics

HowTos

How to Specify Default Properties and the Preview 16

Object Properties Window

Purpose

To specify default values for objects in the custom 3-D library.

Description

The object property values are displayed in the **Object Properties** window. Only customer object properties can be edited. dSPACE objects are read-only and can therefore not be modified.

Object Properties

In the **Object Properties** window, you can specify the default values of the properties. For a description of the properties, refer to Object Properties (MotionDesk Scene Creation 🕮).

Create as Lets you specify whether the object is created as a static or movable object when it is dropped into the scene in the **3-D View**. However, if an object is a movable object by default, you can still create it as a static object and vice versa.

Natural orientation Lets you define the default orientation that will be used as the ModelDesk traffic object. This angle defines the angle in which the front of an object is facing (e.g., entrance of a house, front side of a traffic sign, front of a car).

Related topics

HowTos

How to Group Objects 17
How to Specify Default Properties and the Preview 16

References

Child Properties 34

Automation

Where to go from here

Information in this section

Information in other sections

Introduction to the MotionDesk Automation Interface (MotionDesk Automation 🕮)
Introduces the MotionDesk automation interface and the required user experience.

Features of MotionDesk Automation Interface (MotionDesk Automation 🕮)
Describes the features of the MotionDesk automation interface.

Overview of the Object Model (MotionDesk Automation 🕮)
Shows you the object dependencies, object attributes and methods in the MotionDesk object model at a glance.

Example of Automating MotionDesk with a Python Script (MotionDesk Automation 🕮)
Code examples demonstrate how you can automate MotionDesk with a Python script.

Classes for 3-D Objects

LibraryManager

Purpose

To access the dSPACE objects library and the custom objects library.

Where to go from here

Information in this section

Class Description (LibraryManager)

Syntax

```
LibraryManager = Application.LibraryManagement
```

Purpose

To access the dSPACE objects library and the custom objects library.

Attributes

–

Methods

The class contains the following methods:

Method	Purpose
dSPACEObjectsPath	To return the dSPACE objects library path. Refer to dSPACEObjectsPath on page 39.
CustomerObjectsPath	To return the custom objects library path. Refer to CustomerObjectsPath on page 40.

Method	Purpose
ImportElement	To import a 3-D object into the custom objects library. Refer to ImportElement on page 40.

Related topics

References

Class Description (Application) (MotionDesk Basics 🕮)

dSPACEObjectsPath

Class

LibraryManager

Syntax

```
MyLibraryManagement.dSPACEObjectsPath()
```

Purpose

To get the dSPACE objects library path.

Parameters

-

Return value

The method returns the following parameter:

Type	Description
String	Returns the dSPACE objects library path.

Related topics

References

Class Description (LibraryManager)..... 38

CustomerObjectsPath

Class

LibraryManager

Syntax

```
MyLibraryManagement.CustomerObjectsPath()
```

Purpose

To get the custom objects library path.

Parameters

-

Return value

The method returns the following parameter:

Type	Description
String	Returns the custom objects library path.

Related topics

References

Class Description (LibraryManager)..... 38

ImportElement

Class

LibraryManager

Syntax

```
MyLibraryManagement.ImportElement(SourceFilePath, RelativeDestinationFolder,
Keywords, OverwriteExisting)
```

Purpose

To import a 3-D object into the custom object library.

Parameters

The method uses the following parameters:

Parameter	Type	Description
SourceFilePath	String	Path to the file of the 3-D object to be imported.
RelativeDestinationFolder	String	Relative path in the custom object library. Specify an empty string to import the object in the root folder

Parameter	Type	Description
		or specify a subfolder, for example, `r'\MySubfolder'`.
Keywords	String	List of keywords that are assigned to the imported object, separated by semicolons.
OverwriteExisting	Boolean	Defines whether to overwrite an object with the same name.

Return value

The method returns the following parameter:

Type	Description
Boolean	True if the import was successful.

Related topics

References

Class Description (LibraryManager)..... 38

Limitations

Limitations of Custom Object Library Management

Introduction

The following limitations apply when you manage the custom objects library.

Limitations when importing objects

Note the following limitations when importing objects:

- VRML files containing VRML prototypes (for example, `Arrow.wrl` or `PointLight.wrl` from previous releases) cannot be processed by the Library Manager and must therefore not be imported.
- COLLADA files that contain animation are not supported and must not be imported.
- MotionDesk can import COLLADA files of the 1.4 specification.
- The length of the file name with their path of custom objects is restricted to 255 characters. An import fails if the length exceeds this limit.

Numerics

C

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F

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M

O

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V