Hozo – Ontology Editor
(Distributed Development Version)

Quick Reference

1. Preface

This document is intended primarily for users who have used Hozo before and provides an overview of the new features in Hozo - Ontology Editor Distributed Development Version. Please see the Hozo - Ontology Editor (Distributed Development Version) Operating Manual for details regarding tool operation.

1.1 New Feature Overview

(1) Enhanced Search Function

In addition to concepts, role concepts, class constraints etc. can be designated as targets for searching.

(2) Differential Display Function Added

Allows comparative display (differential display) of differences in two Ontologies so that changes can be confirmed.

(3) Ontology Version Management

Automatically performs backups when upgrading Ontologies and allows management of past upgrade logs.

(4) Project Management Feature Added

Ontologies can be constructed by dividing them into multiple partial Ontologies, so required concepts can be imported from other Ontologies within the project.

(5) Sharing Ontologies with Multiple Users

Collaborative development work by multiple users (developers) is supported through sharing Ontologies on networks.

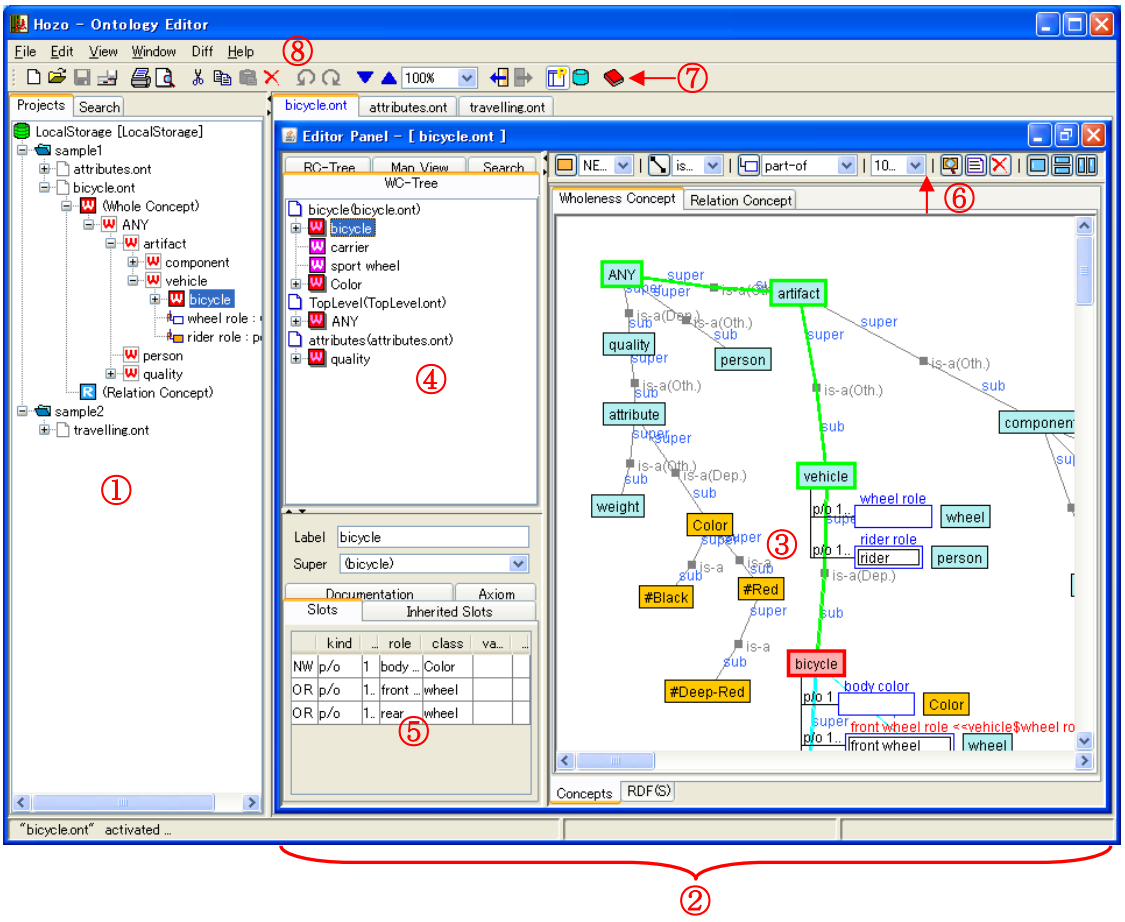
1.2 System Requirements (Recommended Environment)

Machine	PC/AT compatible (DOS/V)
CPU	Intel Pentium Ⅲ processor, 800MHz or higher
Memory	256MB or more RAM (512MB or more recommended)
Hard Disk Space	30MB or more available hard disk space.
Monitor Resolution	1024x768 (XGA) or higher
OS	Windows 2000 or higher (Windows XP or higher recommended), Mac OS X
Java	JRE/JDK 1.5.0_10 or higher (1.6.0 or higher recommended)
Network	Not required if using on a local machine. When sharing within networks, clients and servers are connected via Ethernet using TCP/IP protocol.
Other, Supplementary Items	Communication via the Internet[1] will utilize the Jakarta Slide project's WebDav client module as the WebDav communication module. URL: http://jakarta.apache.org/slide/

[1] Features for communication via the Internet will be released soon and available in the next version.

1.3 Screen Layout

<Ontology Editor Editing Screen>



①**Project Management Pane**: allows user to display and manage a tree view of the project and Ontologies within the project.

-[Project] Management View: allows user to display and operate projects and Ontologies.

-[Search] View: allows user to search Ontologies within the project.

②**Editing Pane**: allows user to switch between multiple Ontologies with a tabbed display.

③**Browsing Pane**: displays Ontologies graphically.

④**Navigation Pane**: provides an overview of the Ontology.

-[WC (Wholeness Concept) Tree] View: provides a tree view of Wholeness Concept super and sub levels (is-a hierarchy).

-[Relational Tree] View: provides a tree view of Relational Concept super and sub levels (is-a hierarchy).

-[Concept Map] View: Provides a map view of the Ontology's concept in it's entirety.

-[Search] View: allows user to search Ontologies being edited.

⑤**Definition Pane**: allows user to display/edit the content of Ontology definitions.

⑥**Editing Tool Bar**: menu of buttons used when editing Ontologies.

⑦**Operation Tool Bar**: menu of buttons used for Ontology operations.

⑧**Menu Bar**: pull-down menu for running various features.

1.4 Installation

1.4.1 Installation Instructions

・Decompress the archive you downloaded, and place the decompressed folder in a location of your choice on your machine.

[Note] This manual assumes the files are installed on c:\

[Note] To use this tool you must have a Java Runtime Environment.

Java Runtime Environment: Java 2 Platform, Standard Edition
(version 1.5.0_10 or higher recommended)
→Can be downloaded from the below site.
http://java.sun.com/javase/downloads/
* Select Java Runtime Environment (JRE), which contains only the runtime environment, or the Java SE Development Kit (JDK), which includes a development environment.

[Note] If the "lib" folder in the downloaded folder does not contain all of the following library files, please download the missing files from the below site.

<Download Site>
http://jakarta.apache.org/slide/

<Required Library Files>
・commons-httpclient.jar
・commons-logging.jar
・jakarta-slide-webdavlib-2.1.jar
・jdom-1.0.jar

1.4.2. Uninstall Instructions

・Delete the installed folder.

[Note] There is no uninstaller.

1.4.3. File Structure

This software is comprised of two programs: Hozo Ontology Editor ver.5 (OE5) and Model Editor ver.4 (ME4). The contents of the files and folders are as follows.

・”oe5.jar”: Ontology Editor executable file (jar file).
・”oe5.bat”: batch file for launching Ontology Editor.
・”me5.bat”: batch file for launching Model Editor.
・”data3” folder: folder for storing data. Also contains sample data.
・”LocalStorage” folder: folder for managing local projects (contains samples).

・”ServerStorage” folder: folder for managing server projects (contains samples).
・”lib” folder: stores libraries required by tools.
・”manual” folder: Ontology Editor manual (HTML file).
・”hozo.properties”: settings file for Ontology Editor.
・”me4.properties”: settings file for Model Editor.
・”readme_jp.txt”: explanations of tools (text version).
・”oe5.scpt”: AppleScript file for launching under Macintosh environments.

1.4.4. About Sample Files

Sample data is contained in application files.

(1) Standalone Ontology Data
- Found in “data3” in the application folder.
  - “vehicle.xml”: vehicle Ontology sample.
  - “travelling.xml”: travel Ontology sample.
  - “BIKE_sample.xml”: bicycle Ontology sample.
  - “BIKE_sample_new.xml”: sample data used in this document.

(2) Project Sample Data
- Found in “LocalStorage” and “ServerStorage” in the application folder.
- Each project folder contains the below sample project data.
  - “SampleProject1”: sample project 1.
    Includes the “travelling.ont” Ontology.
  - “SampleProject2”: sample project 2.
    Contains three Ontologies (“attributes.ont”, “bicycle.ont”, “TopLevel.ont”) and the “test.ont” sample data used in this document.

1.5. Starting the Software

<Windows>

①-1 Execute “oe5.bat”, which is located in the tool folder.

[Note] If you are unable to start the software, please check your Java Runtime Environment version. Please see chapter 5 for directions on checking your Runtime Environment version.

<Mac OS X>

①-2 Under Macintosh environments (MacOS X or higher), place the package folder on the desktop and use the AppleScript file to execute the program.

Alternatively, move to the decompressed folder (see 1.4.1.) in the terminal, and execute the below command.

> java -cp lib/commons-httpclient.jar:lib/commons-logging.jar:lib/jdom-1.0.jar:lib/Jakarta-slide-webdavlib-2.1.jar:oe5.jar hozo.oe.OntologyEditorHZ

[Attention] Do not insert line breaks while entering this command.

②If the Initial Setup Dialog is displayed in the center of the screen, you have succeeded in starting the program.

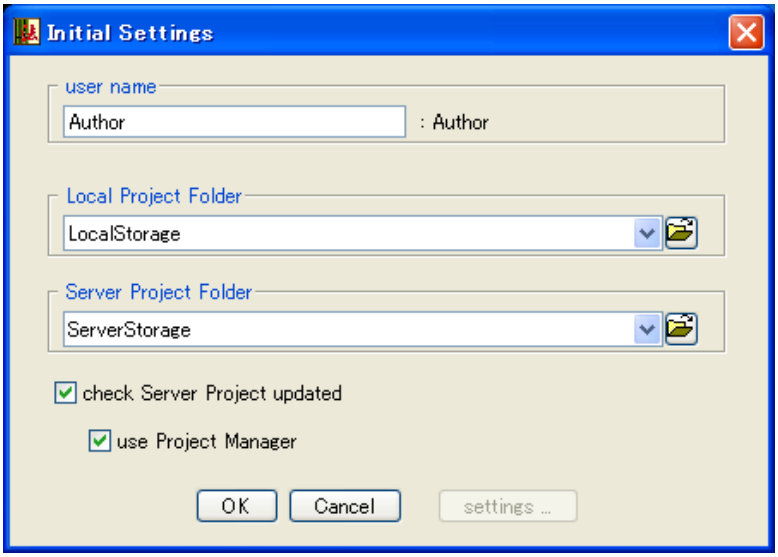


Figure 1-2. Initial Setup Dialog

Various settings can be performed in the Initial Setup Dialog, and the program can be set to launch in the following usage modes.

About Usage Modes

A) Non-distributed Mode (Chapter 2)

*Uncheck "Use Project Management Feature".

This will start the software in the traditional Ontology Editor interface, without using distributed development features.

B) Local PC Distributed Mode (Chapter 3)

*Check "Use Project Management Feature", and select a folder on your computer to use as a server project folder.

A project management folder is set on the local PC (not shared with other users), allowing dependency and version management for multiple Ontologies to be performed while constructing Ontologies.

C) Local Network Distributed Mode (Chapter 4)[2]

*Check "Use Project Management Feature", select a shared **folder on the LAN** as a server project folder.

Create/share a project management folder on a server in your local network environment; Ontologies are shared between multiple users while being structured.

Overviews of how to use each mode will be provided in subsequent chapters.

[Explanation of annotations used in this document]

[Note] (blue): indicates information that is supplementary to the explanation.
[Operation Example](green): indicates an example operation that uses a sample file.
[Attention] (red): describes things which should be given care during operation.
[Reference] (purple): indicates a reference found in another document (or chapter).

[2] An Internet distributed mode will be released soon.

2. Non-distributed Mode (uses traditional Ontology Editor interface)

In this mode, editing can be performed using the traditional Ontology Editor interface. Furthermore, allows new features "Advanced Search" and "Differential Comparison" to be used.

2.1. Making Settings during Startup

(How to Select Options in the Initial Setup Dialog)

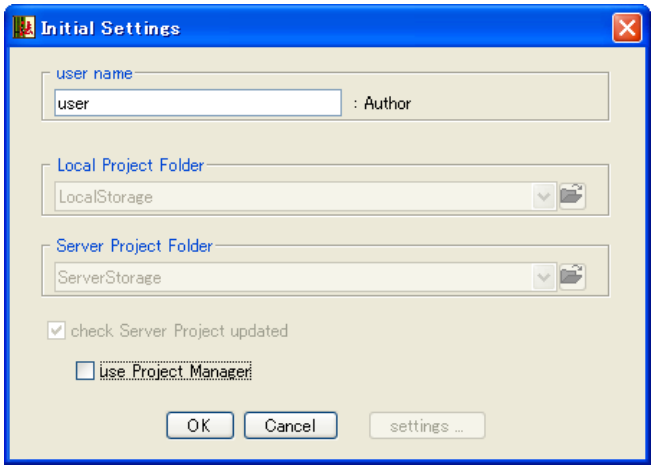
①Enter a user name (any half-width alphanumeric characters).

[Note] You cannot start the program without entering a user name.

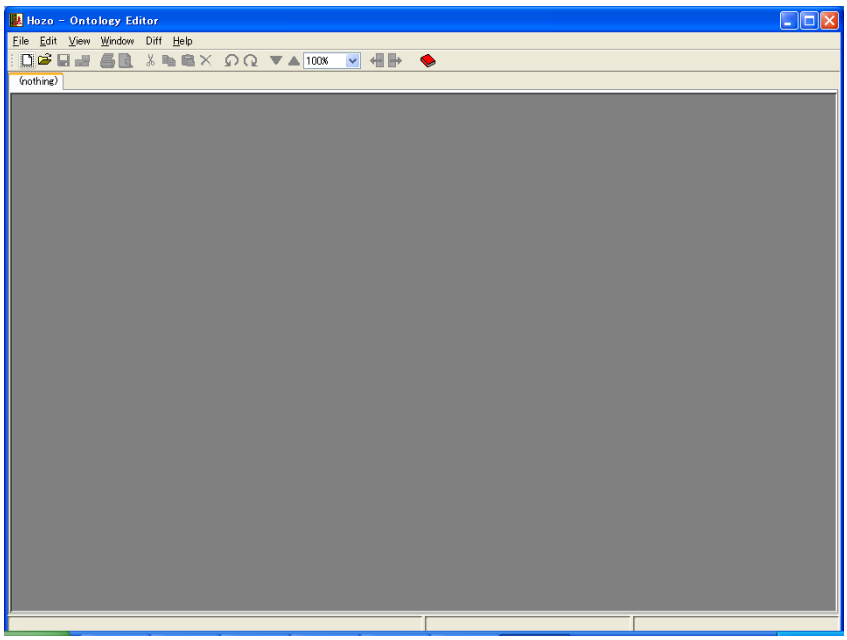
These characters cannot be used in user names: " \ / : * ? " < > | _".

②Uncheck the "Use Project Management Feature" box.

[Note] All fields other than user name will be disabled.



③ Click the [OK] button to display the Ontology Editing screen in Non-distributed Mode (with no Project Management Pane).



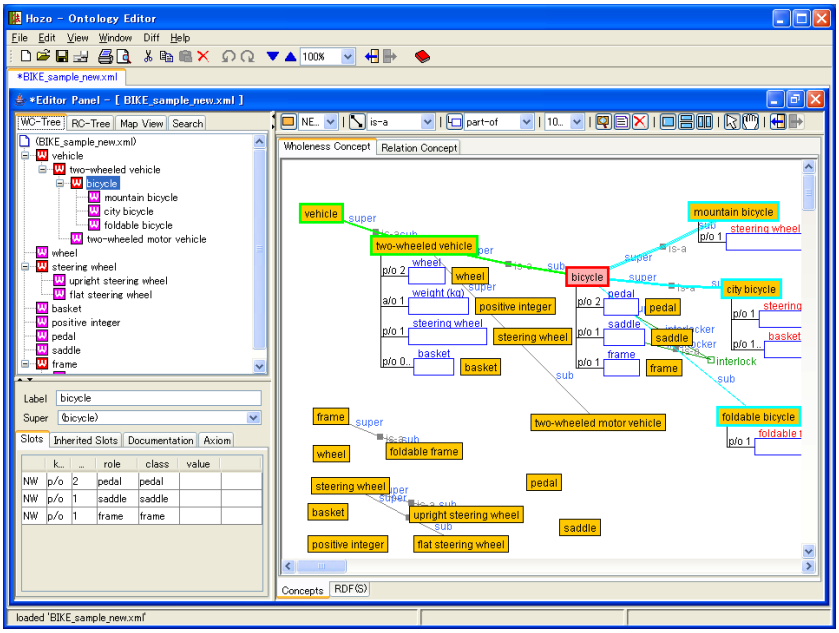
2.2. Editing Ontologies

Editing can be performed in the Distributed Development version just as in the previous editions of the Ontology Editor.

[Reference] See chapter 4 of the Operating Manual for details regarding basic editing operations.

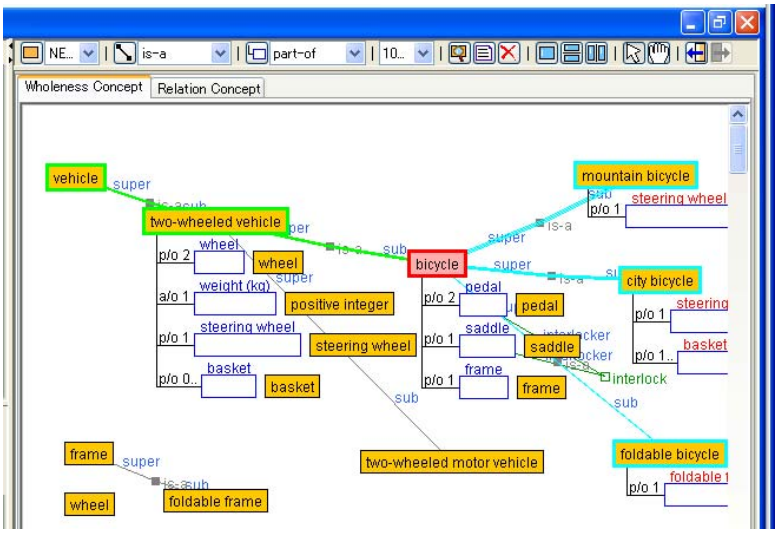
[Operation Example] An example that uses “BIKE_sample_new.xml” will be used in explanations below. Please open it by going to the File menu and selecting the [Open] command.

Next, major new features will be explained.



2.2.1. Super Concept/Sub Concept Highlight View

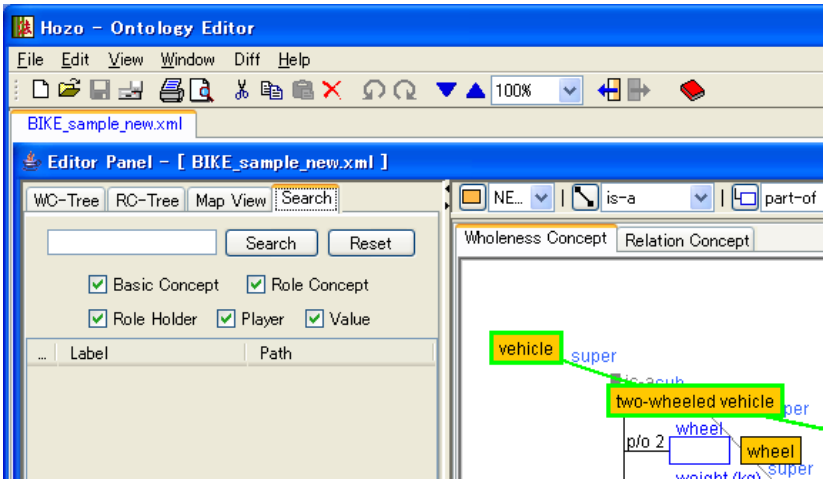
・All super/sub concepts of the concept selected in the browsing pain are highlighted. A similar feature is available for slots.



[Operation Example] In the above figure the super concepts of "Bicycle" are highlighted in light-green while the sub concepts are highlighted in light blue.

2.2.2. Enhanced Search Function

・Role concepts and class constraints can be selected as search targets in the Search tab of the Navigation Pane (see figure below).



・Search results will be shown in a list on the bottom part of the Navigation pane.

①Enter text for which the user wishes to search. The search then looks for concepts containing the entered text. When alphabetic characters are entered, search is not case-sensitive.

②Set the target of search (all targets are checked by default). Items that can be designated as search targets are as follows.

Basic Concept: Sets Basic Concept label as a search target.

Role Concept: Sets Role (Concept) name as a search target.

Role Holder: Sets Role Holder name as a search target.

Class Constraint (Player): Sets concept labels of the slot's Class Constraint as a search target.

Value: Sets the slot value as a search target.

③Clicking the [Search] button will display a list of search results. Characters, indicating the object properties will be added, enclosed in brackets, to the end of the label name. Below is a list of these characters.

(Label name only): indicates a Basic Concept.

[R]: indicates a Role Concept.

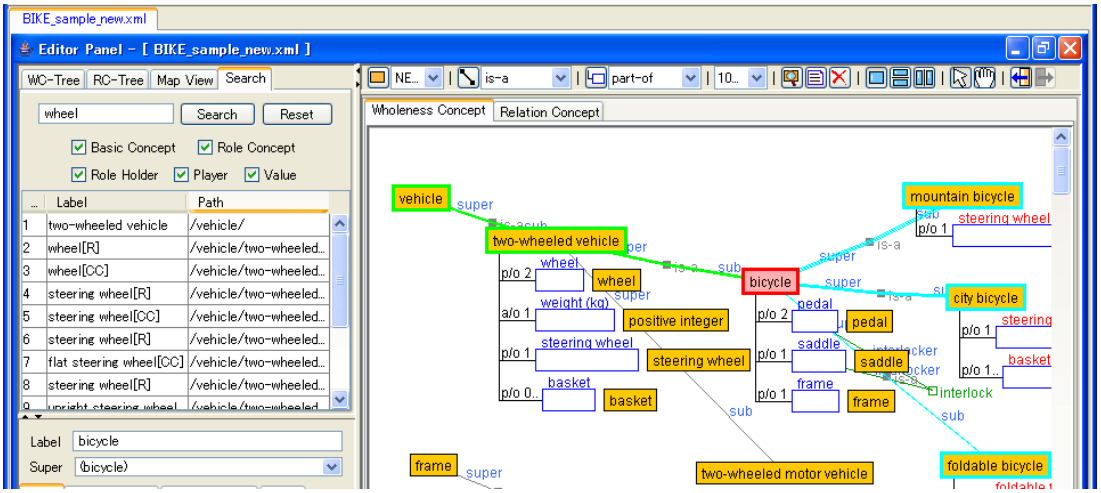
[RH]: indicates a Role Holder.

[CC]: indicates a Class Constraint.

[Val]: indicates a value.

④Clicking on an item in the search result list will select it in the Browsing Pane.

[Operation Example] Results of searching for the word "wheel" in "BIKE_sample_new.xml", are shown in the below figure.



2.3 Differential (Comparative) Display Function

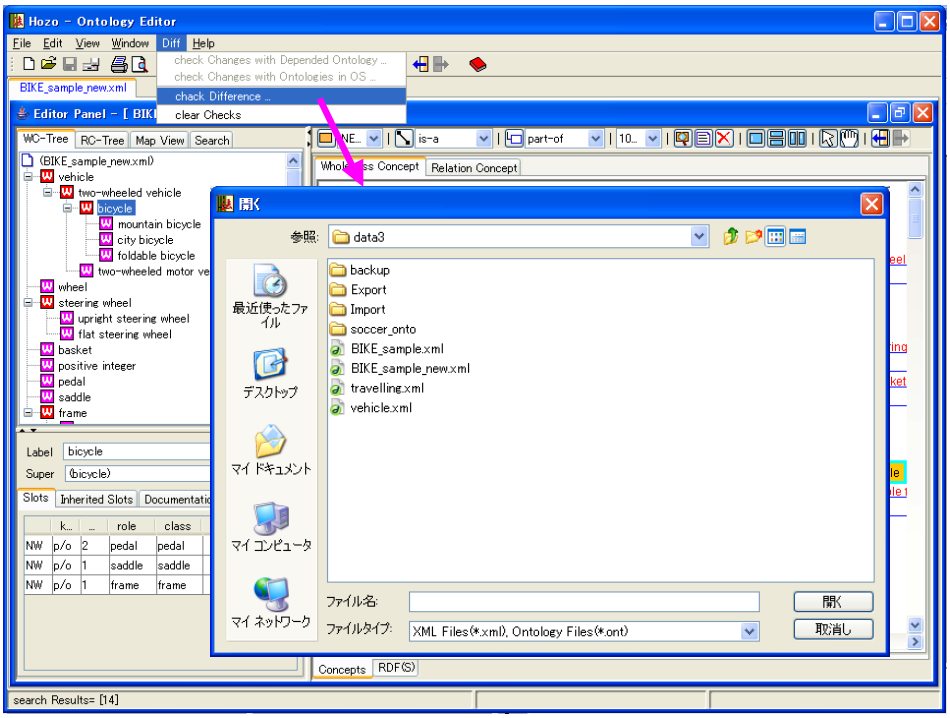
① Put any Ontology in edit mode.

[Operation Example] Put “BIKE_sample_new.xml” in edit mode.

② From the menu bar, select [Differential], [Check for differences with any file...].

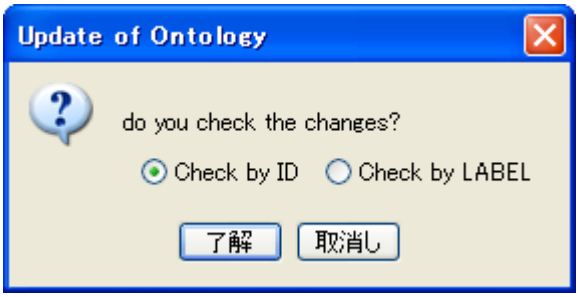
③ Select the Ontology file that will be the comparison target in the file selection dialog.

[Operation Example] For the comparison target, select “BIKE_sample.xml”, the original sample file.



[Attention] The Differential Display shows a comparison of the Ontology shown in the Browsing Pane and the “file” selected as the comparison target. Therefore, if the comparison target is being displayed and edited in a different Browsing Pane, it might not be compared with the Ontology being edited. It is necessary to Save the file in order to compare it with the Ontology being edited.

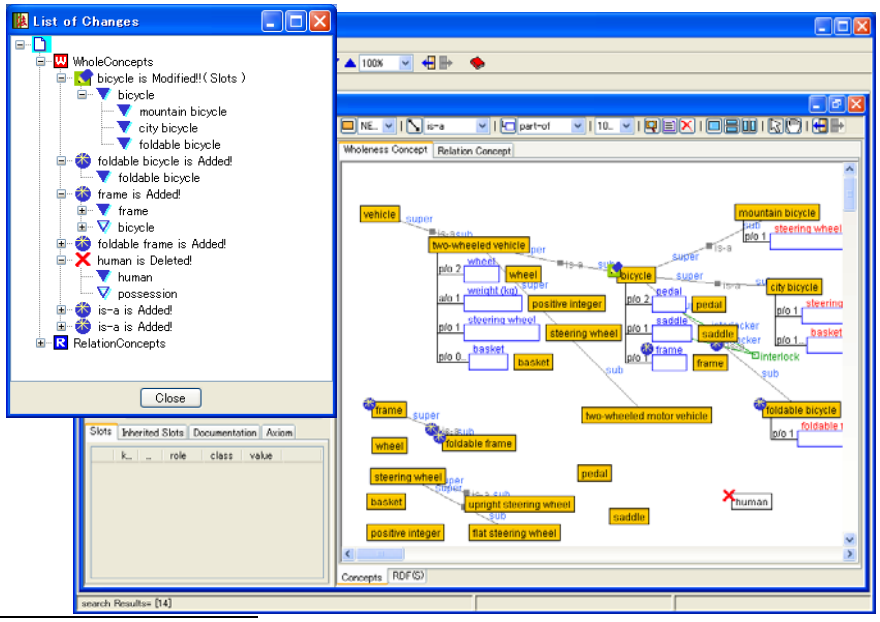
④ After selecting a file in the file selection dialog and clicking [Open], the options selection dialog will be displayed. Choose a comparison option, and click the [OK] button.



[Check by ID]: IDs used by Hozo to manage concepts and slots internally[3] are used to perform the comparison (you should choose this setting in most cases).

[Check by LABEL]: concept labels are used to perform the comparison. Concepts having the same labels are assumed to be identical and handled as such.

⑤ A list of changes will be displayed in a dialog.



3 In previous versions, IDs were not used in the saved files, so labels are compared even when "Check by ID" is selected.

[Note] The (and) icons displayed in the dialog show that changes' scope of effect.

: icon for objects that were added.

: icon for objects that were modified.

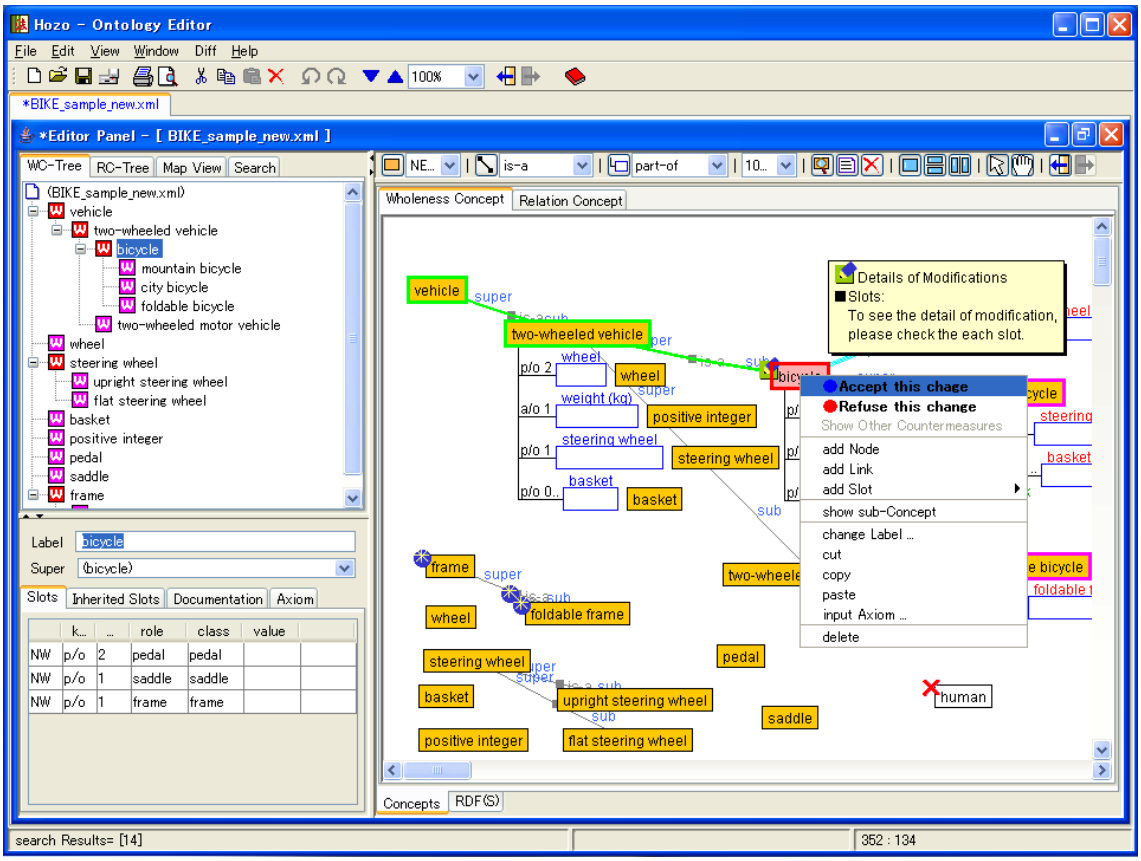
: icon for objects that were deleted.

⑥ Changed items are shown by the changed icon on the Browsing Pane so that changes can be visually confirmed.

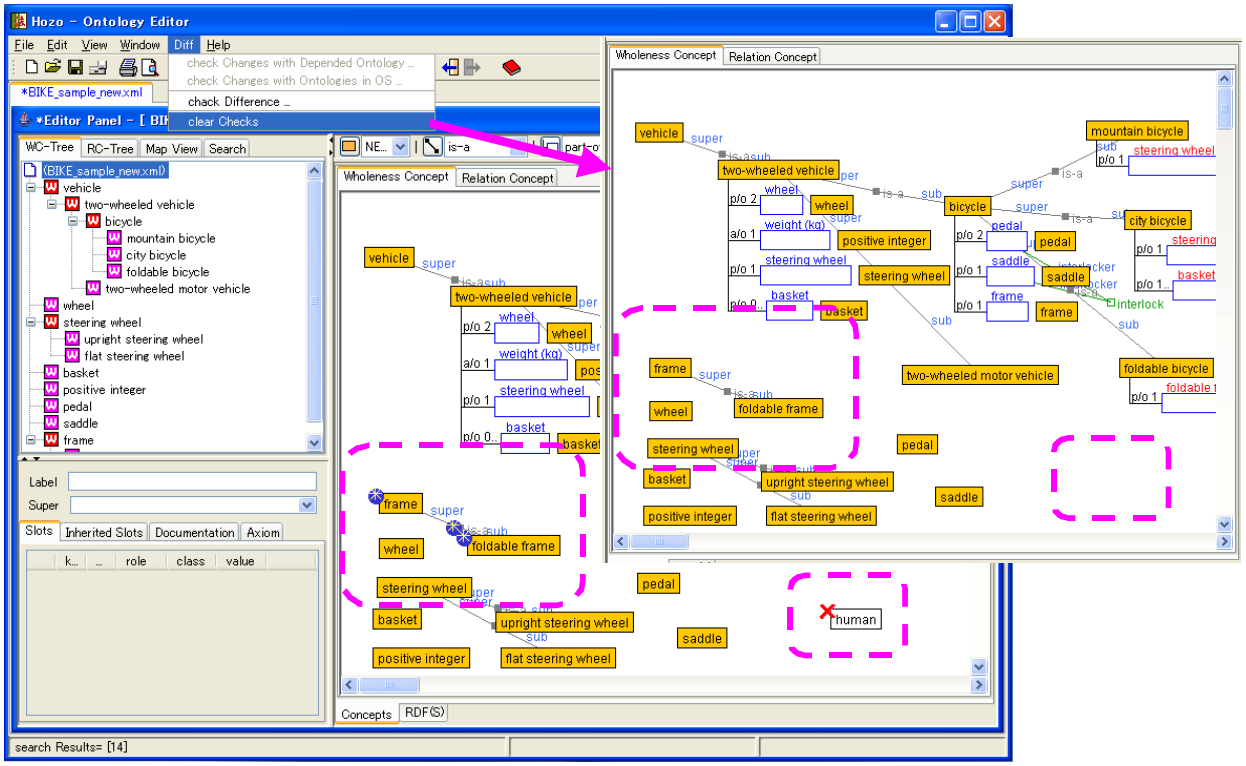
⑦ Selecting an item on the changes list will highlight the location of the change.

⑧ Right clicking a changed object brings up a menu from which you can display “the Details of changes that cannot be confirmed in the Browsing Pane (changes on label and definition contents)”, and displays a menu of actions that can be taken on the changed items, such as "**Accept this change**", and "**Refuse this change**".

[Reference] For details see chapter 4.3.4. “Checking Changes in Ontologies” in the Operating Manual.



[Note] To close the changes log display, select [Clear Changes Log] from the [Differential] menu. However, this will not revert changed items that have been accepted up to that point.



3. Local PC Distributed Mode (Managing Dependencies in Multiple Ontologies)

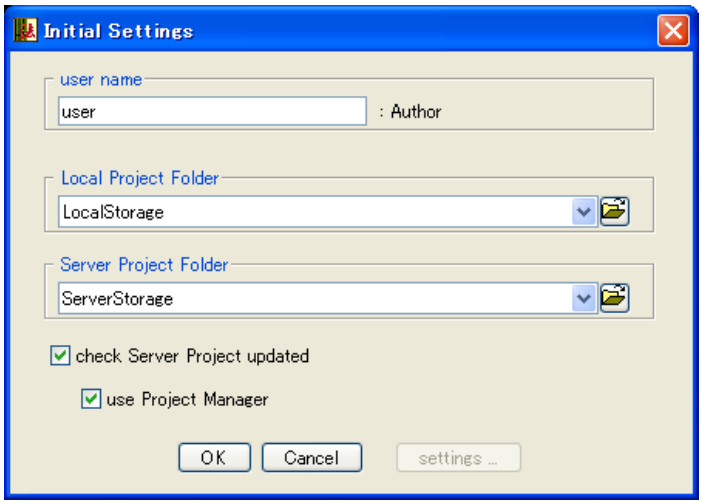
In this mode, the project is managed on a local PC. As long as a project management folder is designated, dependencies and versions can be managed for multiple Ontologies.

3.1. Making Settings during Startup

(How to Select Options in the Initial Setup Dialog)

① Enter a user name (any half-width alphanumeric characters).

② Check the "Use Project Management Feature" box.



③ Designate a name in the "Local Projects Folder" box for the folder that will be used to manage local projects[4].

[Note] Default is "**LocalStorage**" (you should use this setting in most cases).

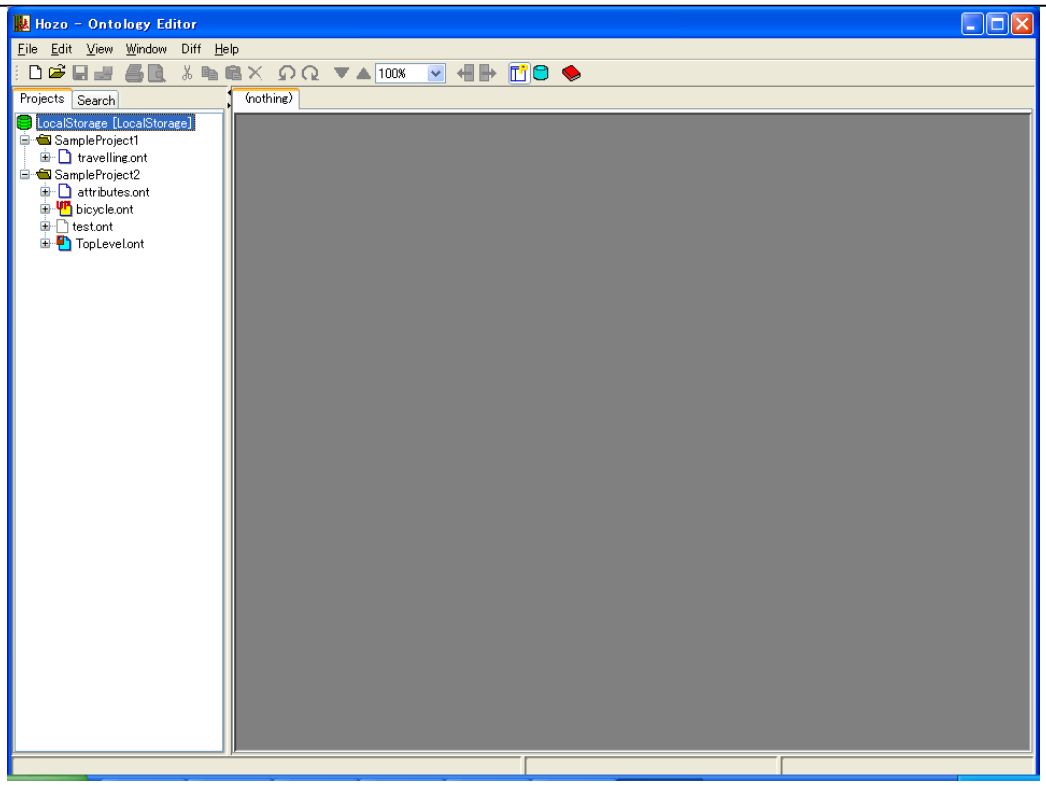
④ Designate a name in the "Server Projects Folder" box for the folder where server projects will be saved.

[Note] Default is "**ServerStorage**" (you should use this setting in most cases).

⑤ Click the [OK] button to start the Ontology editor in Local Distributed Mode (with the Project Management Pane displayed).

[Note] If you check the "Connect and check server for updates" box, the server project will be checked for updates. If this box is unchecked, the server will not be checked for updates (it will be possible to check for updates once the program is started).

[4] Designate the relative or absolute path for the Hozo installation folder. You can also click on the directory button next to the text box to select the folder.



About the Project Management Screen

- If the Ontology Editor is started in Distributed Mode, the "Project Management Tree" will be displayed on the left side of the screen.
- The Project Management Tree is composed of:

  Root Node: the local project folder.

  Project Node: a unit that manages multiple Ontologies (project).

  Ontology Node: constructed from Ontologies that are managed by that project.

  These icons may change due to updates.

  [Reference] See Appendix B for an explanation of the icons.

  [Reference] For details see chapter 4.2. “Managing Projects”, in the Operating Manual.
- Ontologies can be opened for editing by double clicking on the Ontology Node.

3.2. Managing Single Ontology Versions

If the edited Ontology is "uploaded" to the server folder, the Ontology can be updated and a log created.

[Operation Example] “SampleProject1” will be used to explain major features.

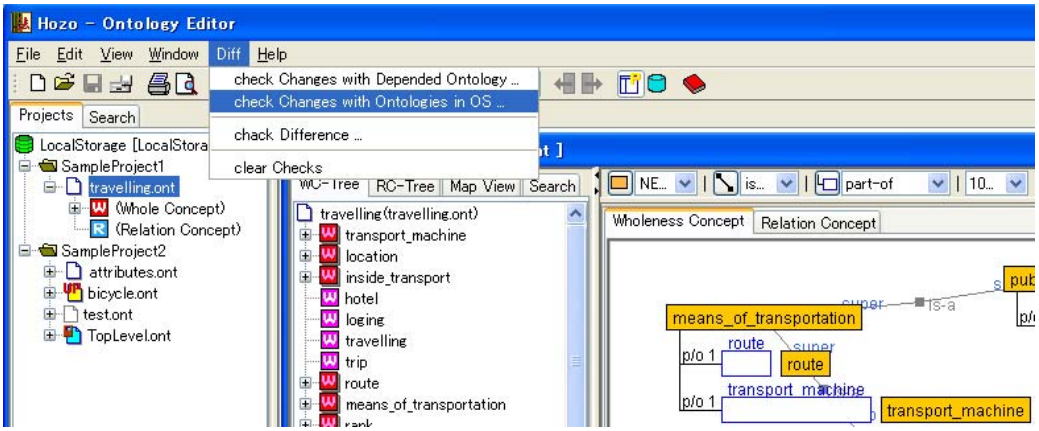
3.2.1. Checking Ontology Update Information

The Differential Display Function is used in order to check updated content with the (usually older version) Ontology on the server.

① Open the Ontology to be edited.

[Operation Example] Open “travelling.ont” in “SampleProject1”.

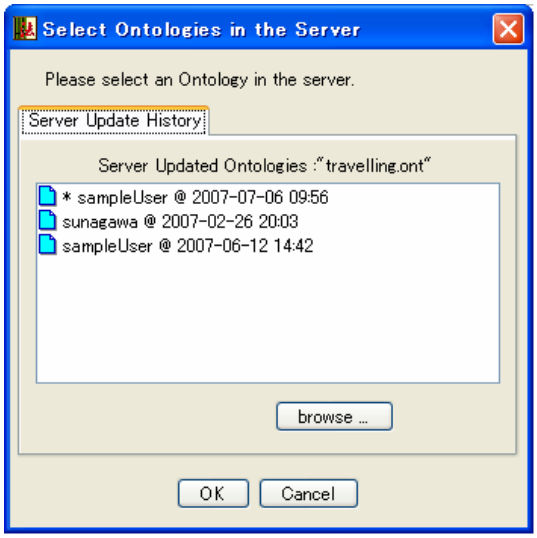
②From the menu bar, select [Differential], [Check for changes with server-side Ontology...][5].



③The update history of the Ontology will be displayed in the server Ontology selection dialog.

[Note] If there is a "*" in front of the title, it is the latest version.

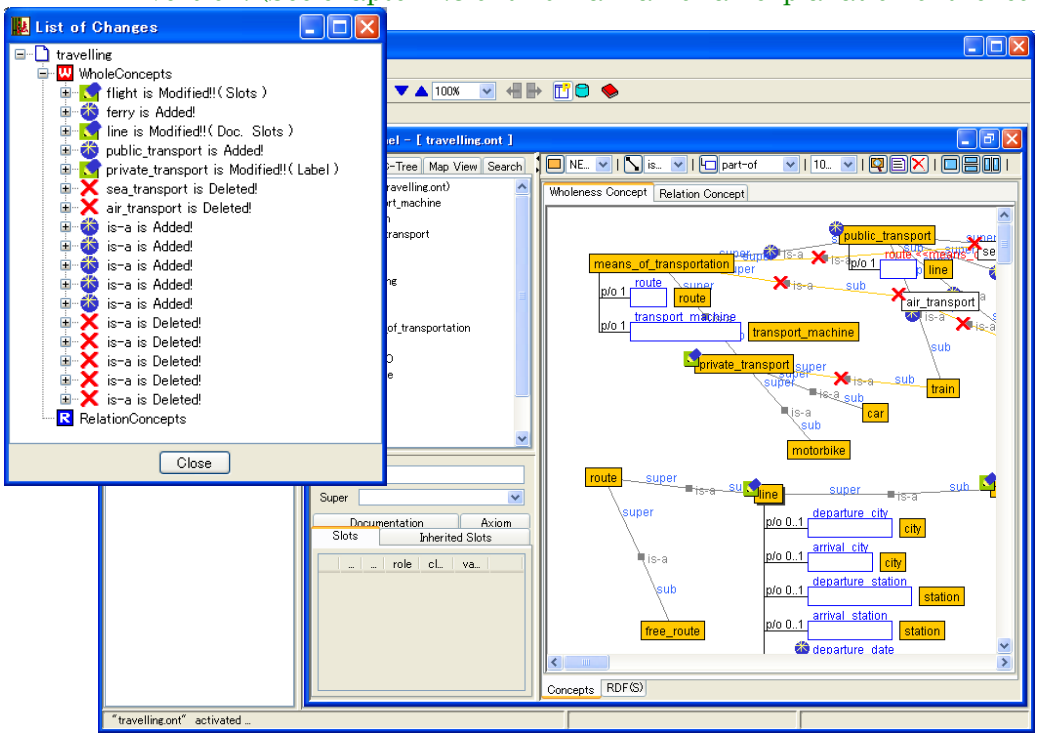
[Attention] In Local Distributed Mode, there will be no differences when comparing with the latest version because “the latest version of the server project folder always corresponds to the data in the local project folder” (in Network Distributed Mode, it is possible that other users are updating, so the data might not correspond).



5 [Check for changes with server-side Ontology...] can also be selected by right-clicking any icon of the Ontology file in the Project Management Tree.

④ After selecting the server-side Ontology that will be compared for changes and clicking [OK], a dialog for confirming the method of checking will be displayed, then the Changes Checklist Dialog will be displayed and changed Ontologies will be shown in the editing panel.

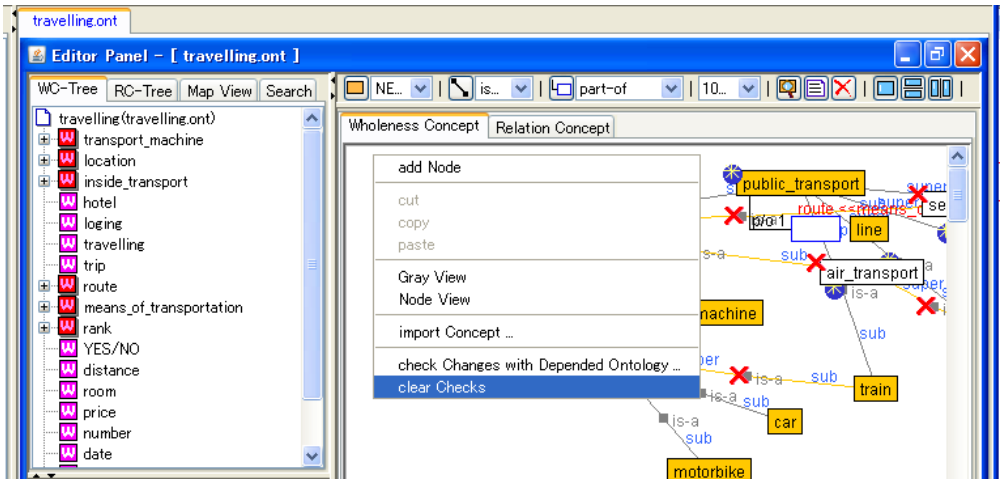
[Operation Example] For example, if you select the file "Sunagawa@2007-02-26..." in the updates log list, you can examine changes to “travelling.ont” since the previous version. (See chapter 2.3 of this manual for an explanation of the icons.)



⑤ To close the changes log after confirming information on changes, right-click the Browsing Pane and select [Clear Changes Log] from the menu to clear the Differential Display.

[Reference] See chapter 2.3 “Differential Display Function” of this manual regarding clearing the changes log.

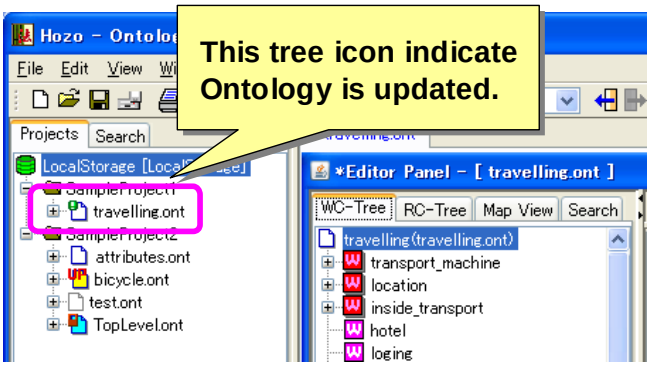
[Operation Example] Clear the changes log for “travelling.ont” once.



3.2.2. Uploading Ontologies to the Server Folder

In order to perform Ontology version management, it is necessary to upload the edited Ontology to the server project folder.[6]

When an edited Ontology is saved, the icon in the Project Management Tree is updated.



[Operation Example] Make a few changes (erase nodes or links, change node label, add new nodes or links etc.) to “travelling.ont”, then save.

Follow the below steps to upload that Ontology to the server folder.

① Right-click on the Project Management Tree project folder or Ontology file[7] icon, and select [Upload to server (check in)…]. The Check in Dialog will be displayed in the center of the screen.

② Confirm the content to be uploaded, and click the [OK] button to upload the project folder (Ontology file) to the server. A confirmation message will be displayed.

[Note] After the upload finishes, the tree icon will return to the normal Ontology icon.

③ You can confirm that the uploaded content was reflected by following the steps for confirming updated information in chapter 3.2.1.

[Operation Example] The content you have just edited can be detected by comparing with the older version ("sampleUser@2007-06-12...")

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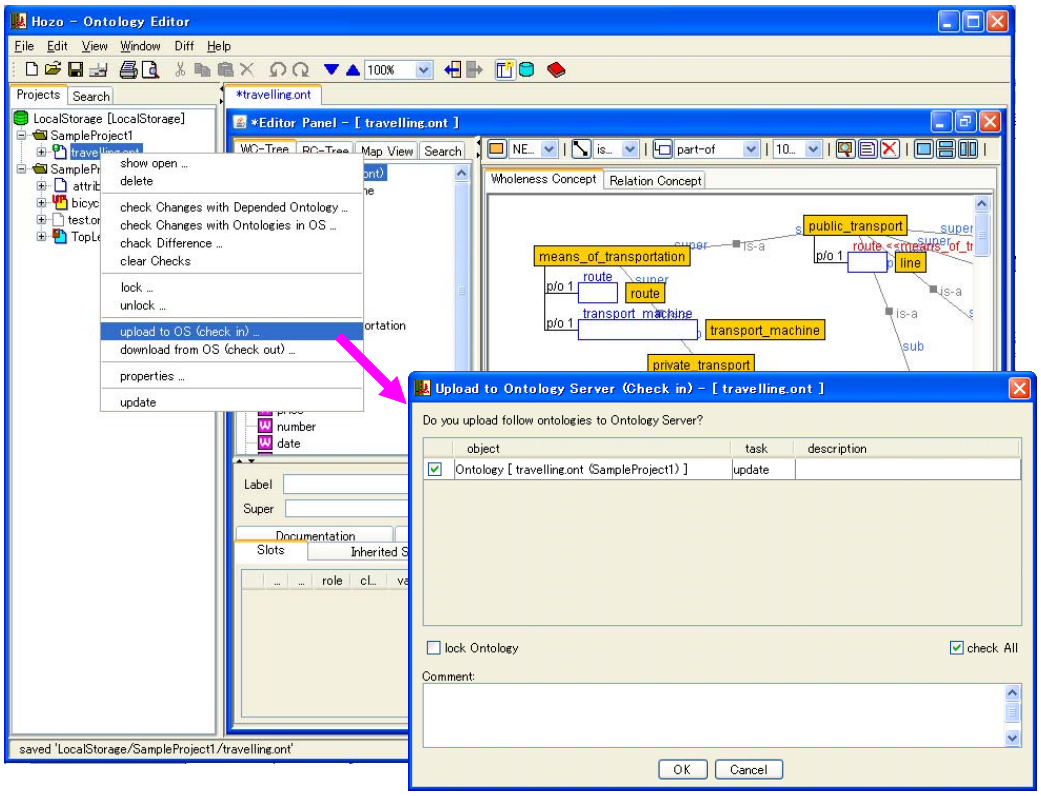
6 Please note that just saving an edited Ontology will not perform version management.

7 When performing upload operations with the Project Management Tree project or root, an entire project or local folder can be uploaded.



3.3. Managing Multiple Ontologies

By managing multiple Ontologies together as one project, concepts defined in other Ontologies within the project can be imported into the Ontology being edited. Dependencies with the import source Ontology are managed by the tool.

[Operation Example] The project “SampleProject2” will be used in explanations hereafter.

3.3.1. Importing Concepts from Other Ontologies within the Project

Follow the below steps to import concepts from other Ontologies within the project.

① Open the Ontology to be edited.

[Operation Example] Open “test.ont” in “SampleProject2”. In “test.ont” there is just one concept, “motorbike”, defined.

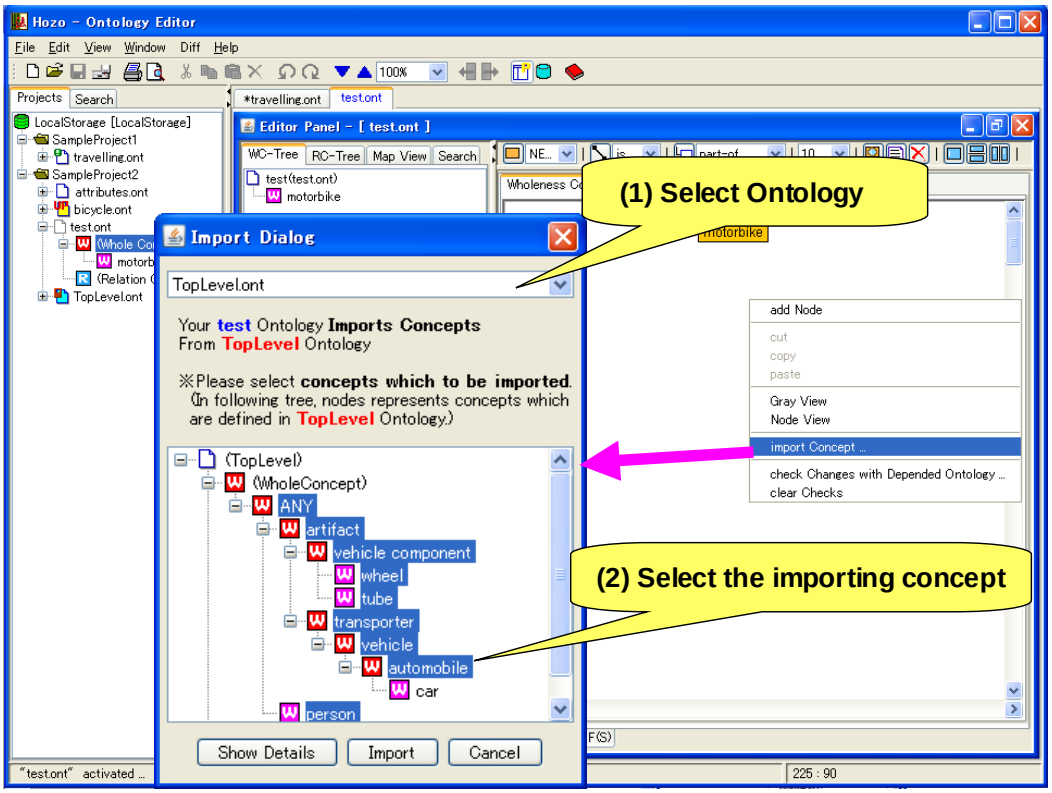
② Without selecting anything, right-click in the Browsing Pane of the referencing Ontology (“test.ont”) to display the right-click menu, and select [Import concept].

③ The Dependent Concepts Import Dialog will be displayed.

④ Select the referenced Ontology from the list located in the upper part of the Import Dialog, and select the concept to be imported from the is-a hierarchy tree shown in the center of the dialog.

[Note] When selecting a concept on the tree, concepts having dependencies with that concept (concepts referenced as super concepts and class constraints) are automatically selected.

[Operation Example] Select "TopLevel.ont" from the Ontology list (□ in the below figure), and select "automobile" as the concept to be imported (□ in the figure).



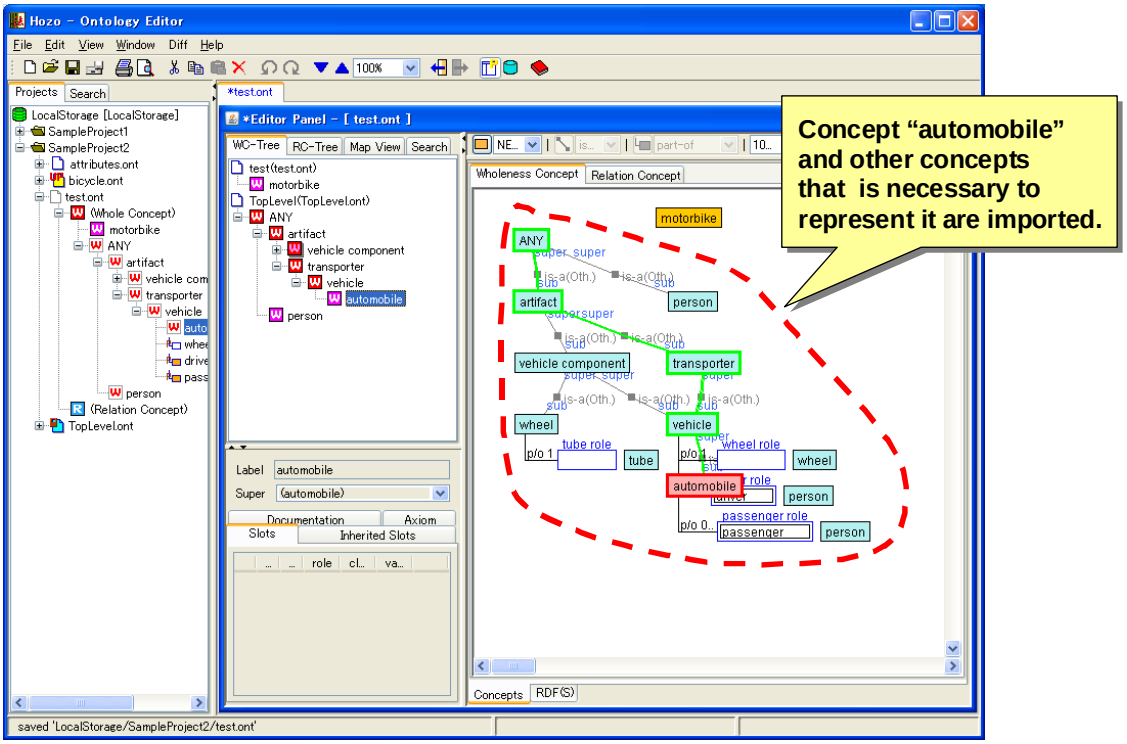
⑤ Clicking the [Import] button on the bottom of the dialog, dependent concepts are imported.[8]

Unlike regular concepts, imported dependent concepts will be displayed in light blue.

[Operation Example] If you import the concept "automobile" into "test.ont", the concepts necessary to it (concepts referenced as super concepts and class constraints) will also be imported.

[Note] These imported concepts can have sub concepts and be used as class constraints. However, as they are handled as if "they are being referenced by another Ontology", they cannot be edited in the referencing Ontology.

8 When a concept is selected to be imported, concepts necessary to that concept will be selected and imported at the same time.



3.3.2. Checking Changes in Depended Ontologies

In the process of importing concepts and structuring/editing Ontologies, it will become necessary to confirm whether or not imported concepts while editing the Ontology have been changed. Follow the below steps to check the latest version of the Ontology in a dependency relationship against the Ontology of the time it was imported.

① Select the Ontology to be edited.

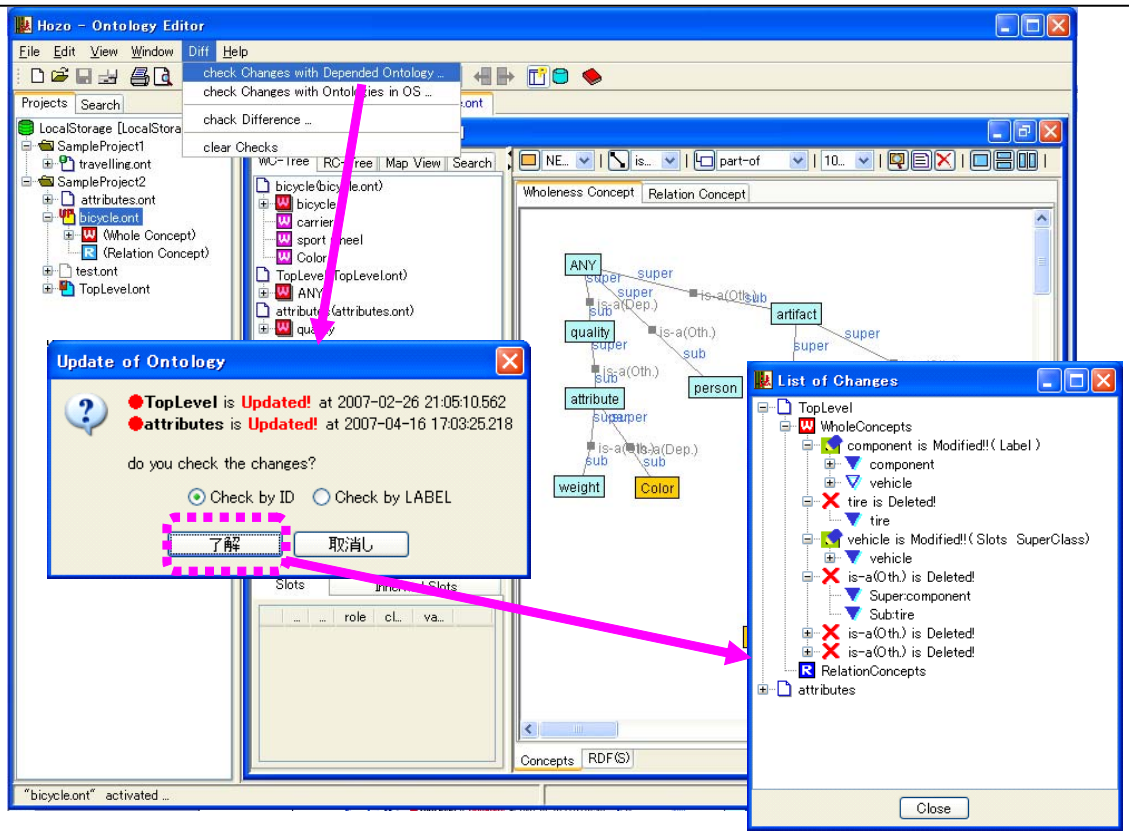
[Operation Example] Open “bicycle.ont” in the project “SampleProject2”.

② From the menu bar, select [Differential], [Check for differences with depended Ontology...][9], and to bring up the dialog to confirm the updated time and date of the depended Ontology and select change checking options (see chapter 2.3).

③ Click the Close button after confirming the content of changes. A dialog showing a list of changed locations will be displayed, and the icons in the Browsing Pane also will indicate changed locations in Ontologies.

[Operation Example] If you confirm changes in the depended Ontologies for bicycle.ont” in the above example, there will be several changes in concepts imported from “TopLevel.ont”, but no changes for concepts imported from “attribute.ont”.

9 [Check for changes with depended Ontology...] can also be selected by right-clicking the icon of the Ontology file in the Project Management Tree.



[Operation Example] In order to perform subsequent operations, clear the changes log of the “bicycle.ont” once.

3.4. Creating a Project

Up until now, major features have been explained using the pre-made sample projects, but here users will learn how to create new projects.

3.4.1. Creating New Projects

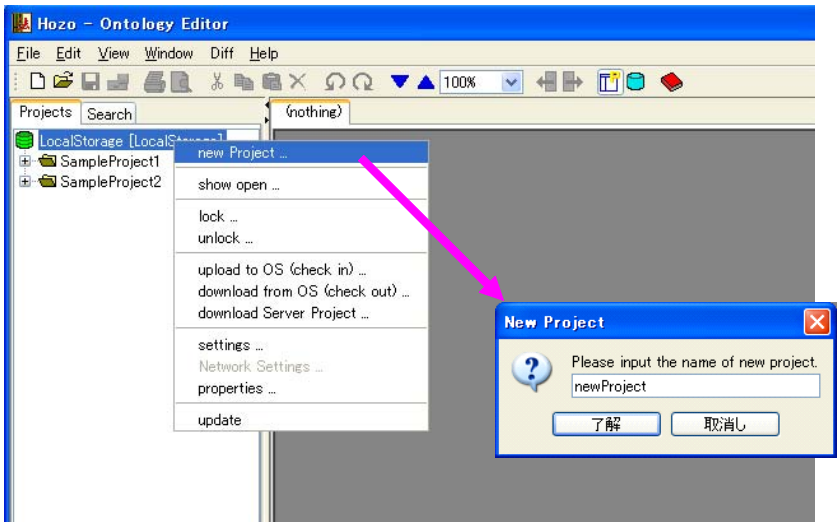
[Operation Example] Here we will create a new project titled “newProject”

① Select the Root Node icon ( ) in the Project Management Tree, right-click to bring up the menu, then select [New Project…].

② The "Create New Project" dialog will be displayed.

③ Enter a name for the new project and click the [OK] button.

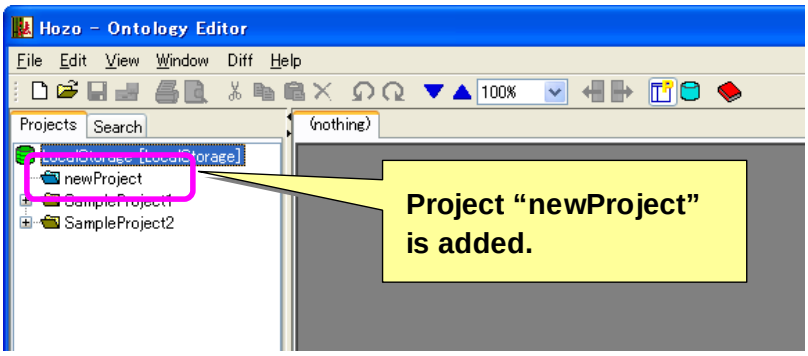
[Operation Example] Enter the name “newProject”.



④ A new project will be added.

[Attention] The newly created project has not yet been uploaded to the server project folder. This is indicated by the "blue" project icon. For information on uploading to the server, see chapter 3.4.4. “Uploading a Project to the Server” in this manual.

[Reference] For details, see chapter 4.2.2. “Creating a New Project” in the Operating Manual.



3.4.2. Creating a New Ontology within a Project

[Operation Example] Here we will create an Ontology called “newOntology” inside the project “newProject”.

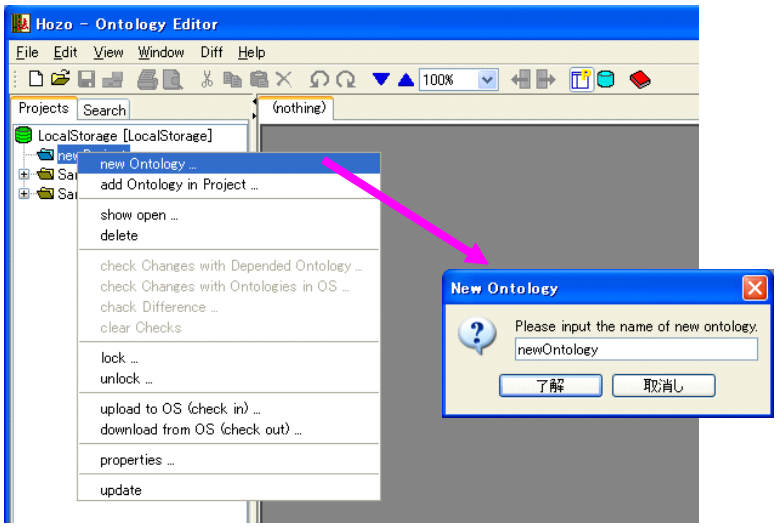
① Select the project folder icon (📁) in the Project Management Tree, right-click it, and select [New Ontology...] from the menu.

[Operation Example] Select and right-click the folder icon for “newProject”.

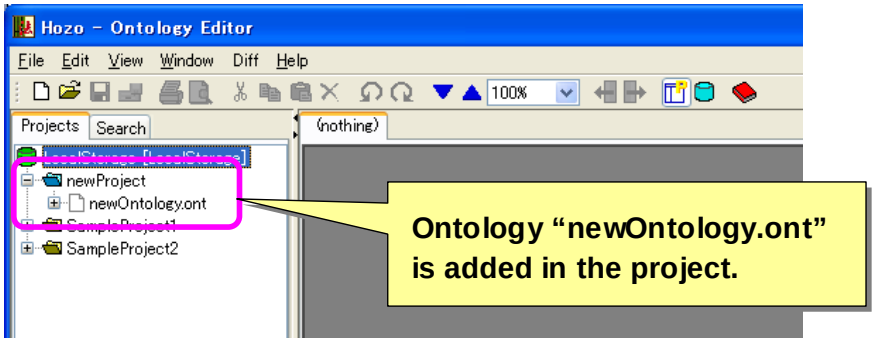
② The "Create New Ontology" dialog will be displayed.

③ Enter a name for the Ontology file in the "New Ontology Name" text box.

[Operation Example] Enter the name "newOntology".



□ Click the [OK] button on the bottom of the dialog to create the Ontology file in the project.



[Note] When creating a project Ontology file, its file extension will be "**.ont**".

[Reference] For details, see chapter 4.2.2. “Creating a New Project” in the Operating Manual.

3.4.3. Adding Existing Ontologies to Projects

[Operation Example] Here we will add the existing Ontology “BIKE_sample_new.xml” to the project “newProject”.

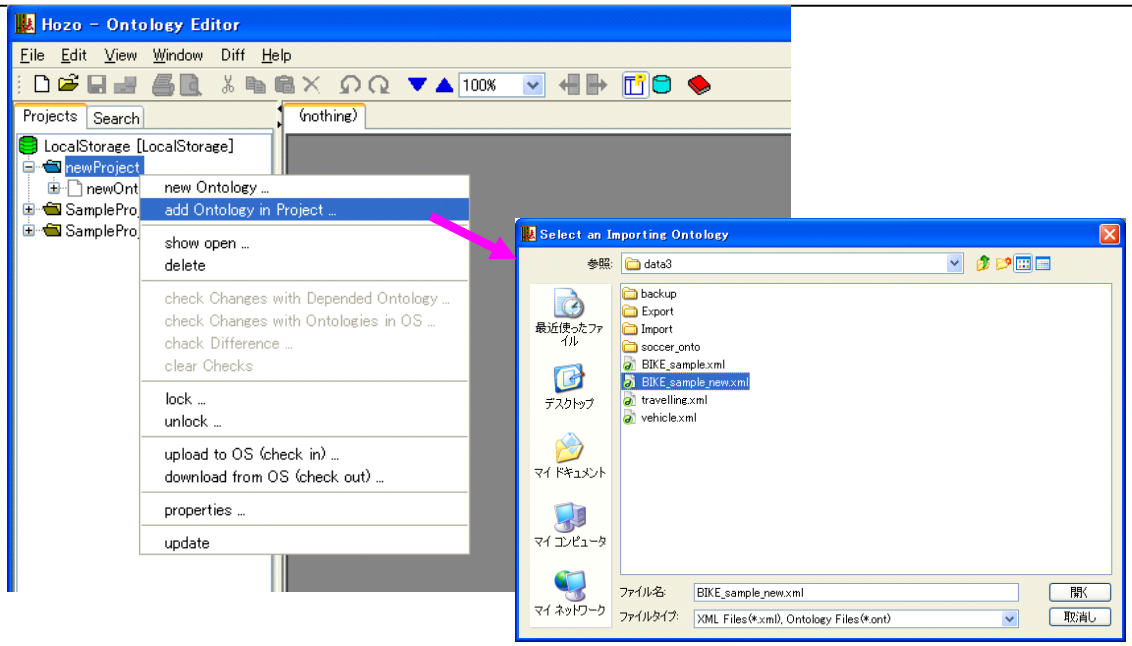
① Select the project folder icon (📁) in the Project Management Tree, right-click it, and select [Add Existing Ontology...] from the menu.

[Operation Example] Select and right-click the folder icon for “newProject”.

② The file selection dialog will be displayed.

③ Select the existing Ontology to be added.

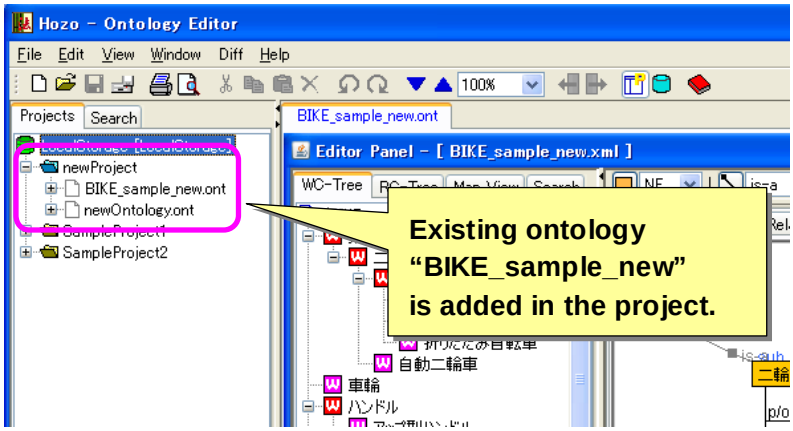
[Operation Example] Select the existing Ontology “BIKE_sample_new.xml”.



④ Click the [Open] button at the bottom of the dialog to add the existing Ontology to the project.

[Note] The designated Ontology file will automatically be copied to the project as a new Ontology file (file extension will be changed to ".ont").
(This will have no effect on the existing Ontology file.)

[Reference] For details, see chapter 4.2.2. "Creating a New Project" in the Operating Manual.



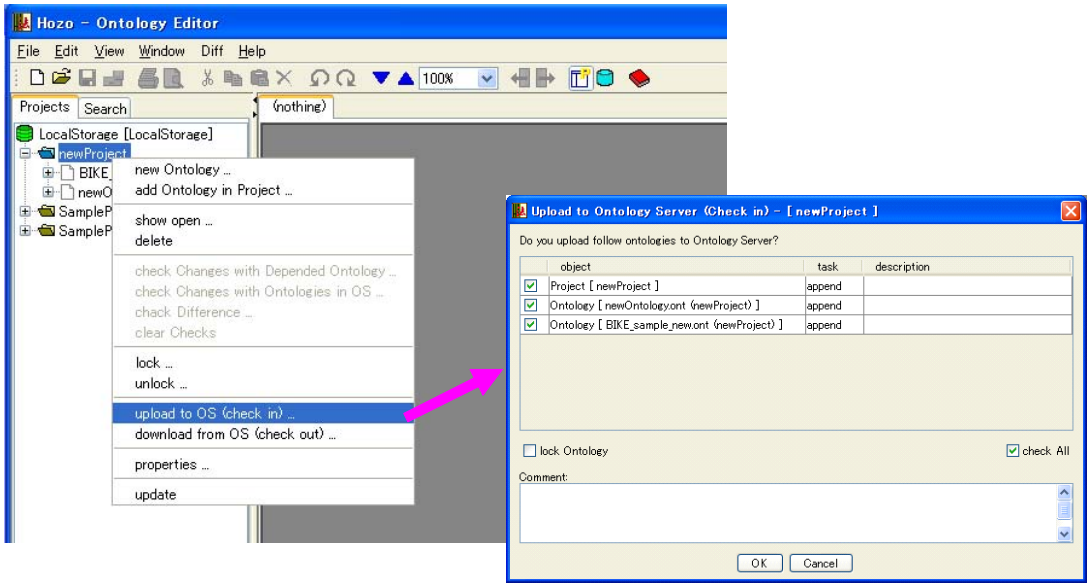
3.4.4. Uploading Projects to the Server

The newly created project has not yet been uploaded to the server project folder. This is indicated by the "blue" project icon. Follow the below steps to upload the project to the server.

① Select and right-click on the project folder icon ( ) in the Project Management Tree, then select [Upload to server (check in)].

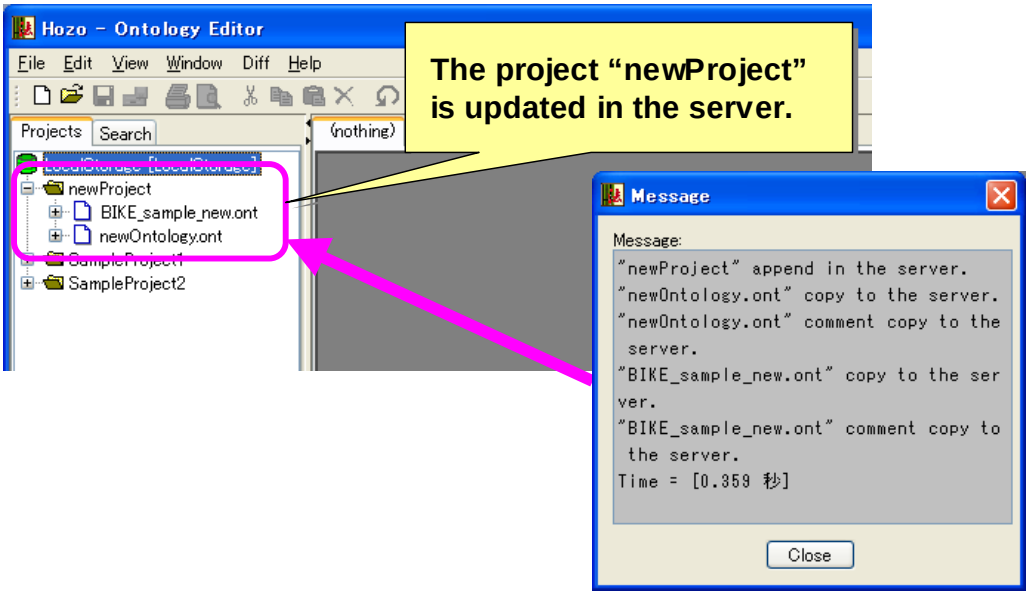
[Operation Example] Select and right-click the folder icon for “newProject”.

② The check in dialog will be displayed.



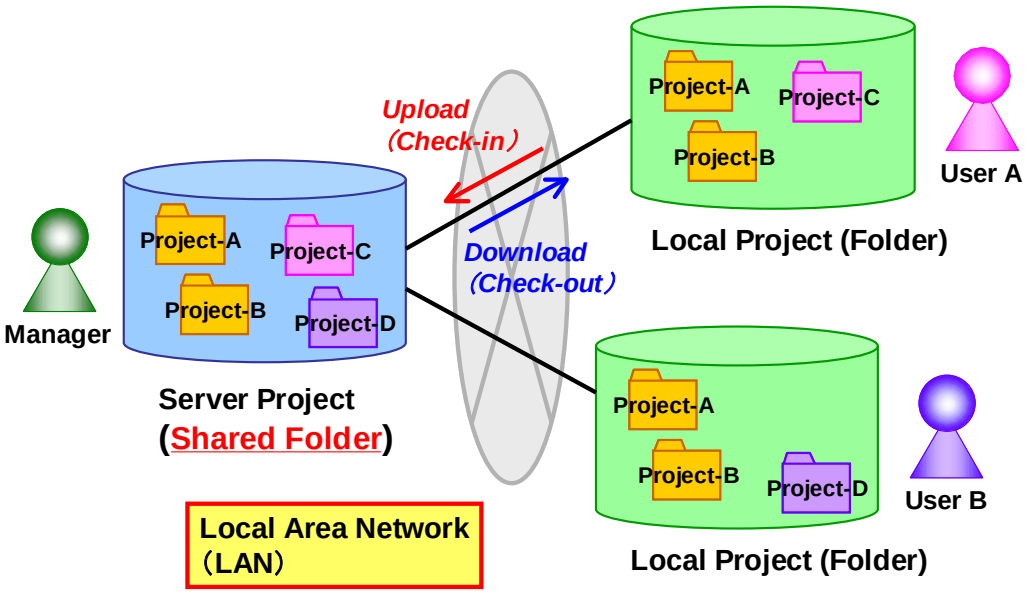
③ After confirming the content to be uploaded, click the [OK] button on the bottom of the dialog.

④ The project folder (Ontology file) will be uploaded to the server and a confirmation message will be displayed. (The project icon will turn yellow, allowing you to confirm that the upload has been completed.)



4. Network Distributed Mode (Sharing Ontologies over a LAN)

Projects and Ontologies can be shared with multiple users over a LAN by setting the server project folder to a shared folder on the local network (LAN).



4.1. Creating a Shared Folder

*In order to share Ontologies over a LAN, it is necessary to create in advance a folder to be used as the server project folder that can be shared on the LAN.

Create a sharable folder on the local network to be used the folder for sharing Ontologies among multiple users. (Normally, it is recommended you create the shared folder on a server etc. on the LAN.)

[Operation Example] Hereafter, examples will assume a folder called "share" has been created on “win_server”, a server computer on the LAN.

① In Windows2000/XP, right-click the folder you wish to share and select [Sharing and Security…] to display the properties dialog.

② On the [Sharing] tab, check the boxes labeled [Share this folder on the network], and [Allow network users to change files] under [Sharing and Security on the network].

[Note] The above steps for creating shared folders may differ depending on your OS version etc. Please see your OS help documentation etc. for details.

[Note] File sharing and access permission may not be possible depending on your network environment. If this is the case, please inquire with your network administrator.

4.2 Making Settings during Startup

(How to Select Options in the Initial Setup Dialog)

① Check the “Use Project Management Feature” box.

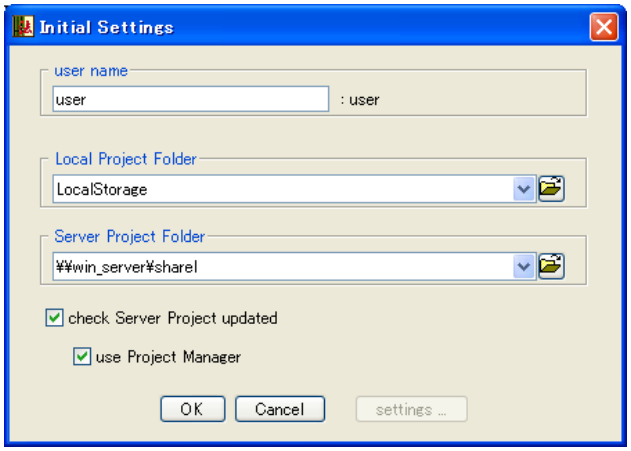
[Note] If you check the “Connect and check server for updates” box, the server project will be checked for updates. If this box is unchecked, the server will not be checked for updates (it will be possible to check for updates once the program is started).

② Specify the local project folder.

[Note] Default is "**LocalStorage**" (you should use this setting in most cases).

③ Specify the server project folder.

[Operation Example] Select the shared folder on the LAN created in 4.1.



[How to Specify the Server Project Folder]

・To specify the server project folder on Windows network, use "//(computer name)/(folder name or path)" (Note: "http:" not needed)

or

"\\(computer name)\(folder name or path)".

Example: "//192.168.1.5/webdav/ServerStorage"

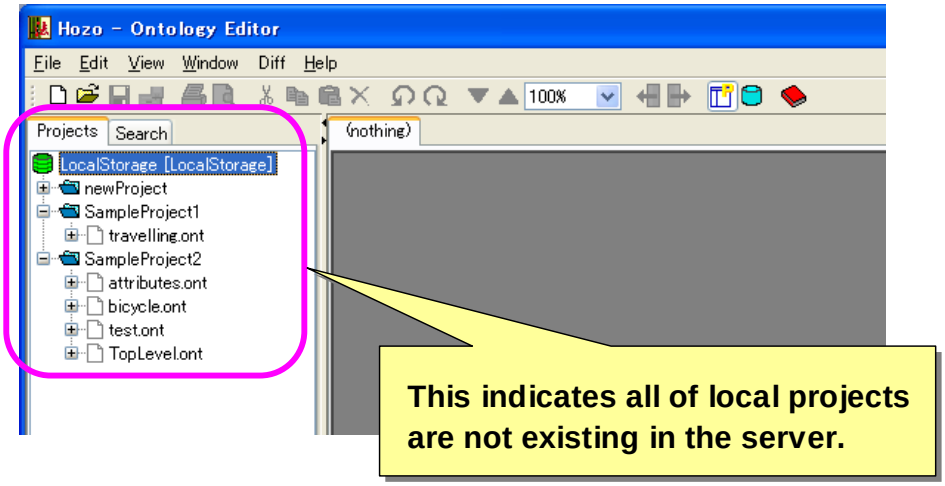
・You can also click on the directory button next to the text box to select the folder.

In the directory dialog, select "My Network" and specify the folder.

[Operation Example] To specify the folder from the previous example, you would use "\\win_server\share".

④ Click [OK] to start the Ontology editor.

[Operation Example] The project folder icons are blue because the project files have not yet been uploaded to the server project folder.



4.3.Managing Ontologies over a LAN

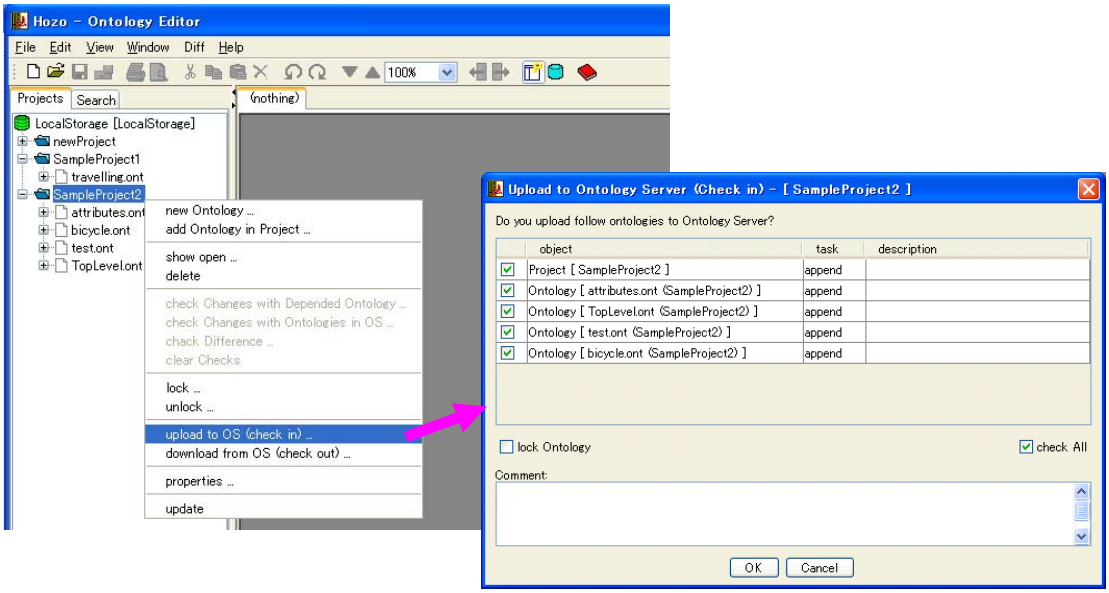
Managing multiple Ontologies, as described in chapter 3, can also be performed over a local network.

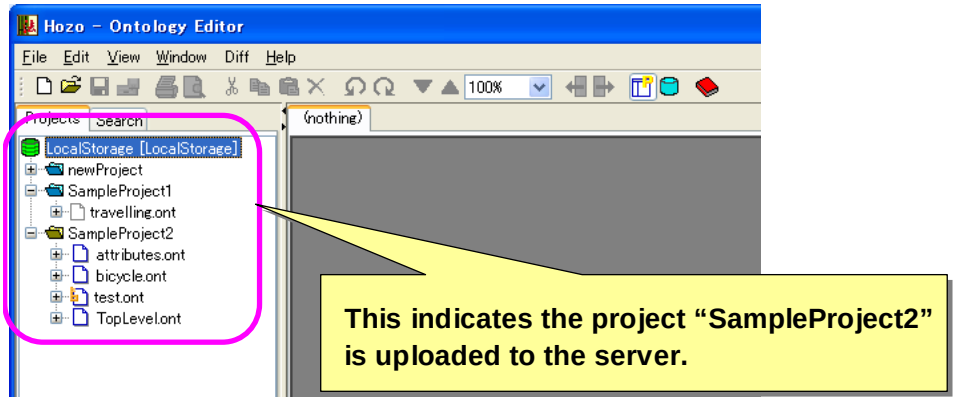
4.3.1. Uploading Projects to the Server

Select and right-click on the Project Management Tree icon, then select [Upload to server (check in)] from the right-click menu to upload a project to the server.

By doing this, the project can be shared among users whose computers can connect to this server folder.

[Operation Example] Try uploading “SampleProject2”. The project data will be copied to the server project folder specified in 4.1., and it will be possible to share it from other computers.





[Operation Example] We will also upload “newProject”, the new project created in chapter 3.

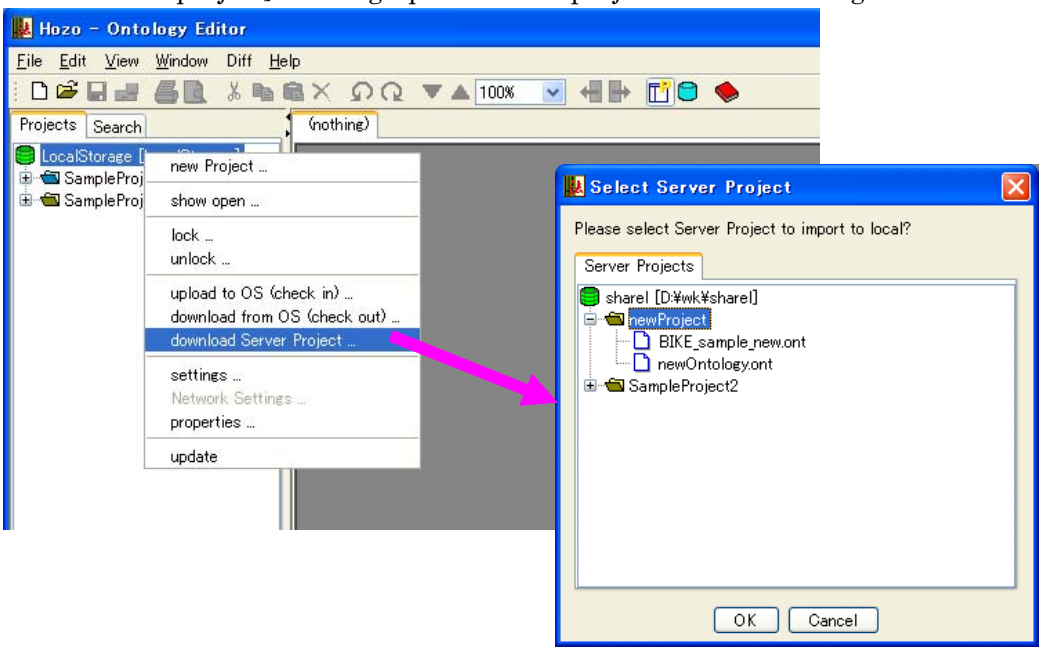
4.3.2. Downloading Server Projects

*This operation is used when collaborating with other users over a LAN. To test standalone operation, skip this section and proceed to 4.3.3.

Follow the below steps to download projects created by other users from the server (shared folder) to your local PC.

[Operation Example] When trying this operation, please install Hozo to a different location (PC) from the one used to upload the project “newProject” in 4.3.1.

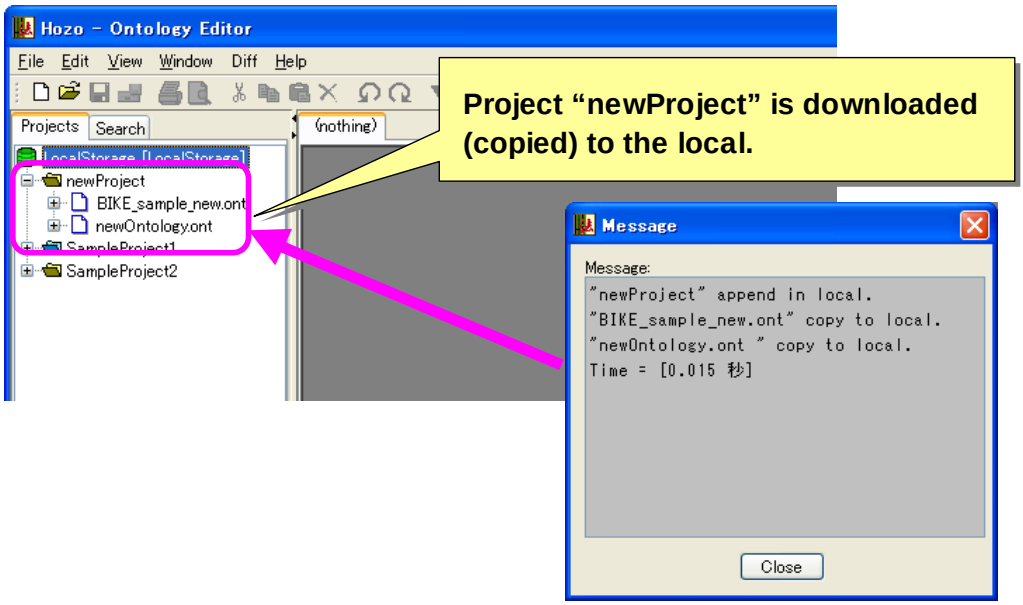
① Right-click on the Root Node ( ) icon in the Project Management Tree and select [Download server project] to bring up the server project selection dialog.



② Select the project file to be downloaded and click the [OK] button on the bottom of the dialog to bring up the project import confirmation dialog.

③ Confirm the content to be downloaded, and click the [OK] button to download the project folder (Ontology file) to the local PC from the server. A confirmation message will be displayed.

[Note] If the selected project already exists in the local project folder, a warning message will be displayed and the download will not start. To update and download a file on the server, please see the explanation on "Downloading Updated Ontologies on the server" in chapter 4.3.2. “Downloading Ontologies” of the Operating Manual.



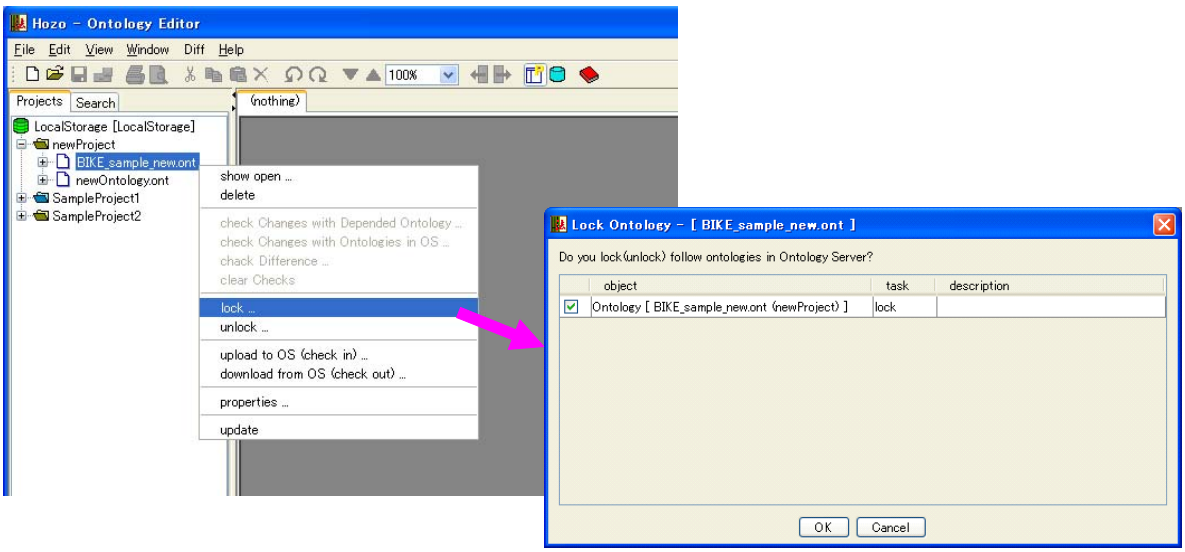
4.3.3. Locking Ontologies

When performing collaborative development on an Ontology with multiple users, updates of the Ontology are temporarily disabled (locked) so that the Ontology cannot be updated on the server by other users.

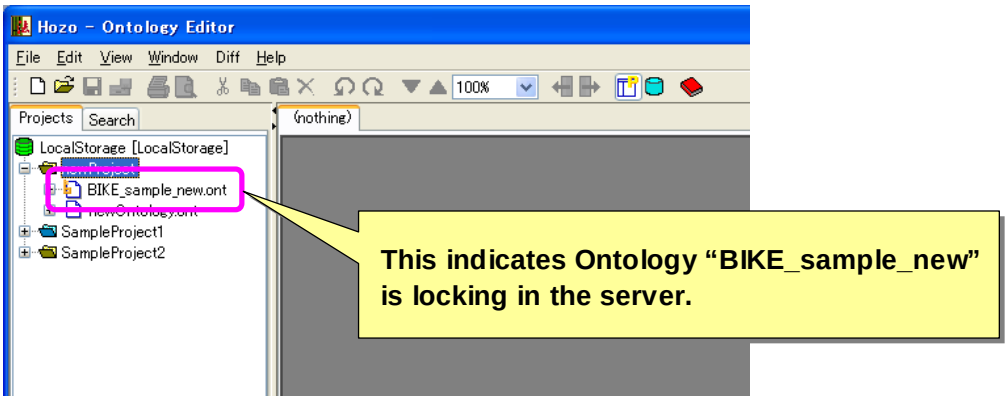
① Right-click on the project folder or Ontology file icon in the Project Management Tree, and select [Lock…]. The lock confirmation dialog will be displayed in the middle of the screen.

[Operation Example] Here we will lock the “BIKE_sample_new” Ontology in the “newProject” project.

[Attention] You cannot lock Ontologies that have not been uploaded to the server.

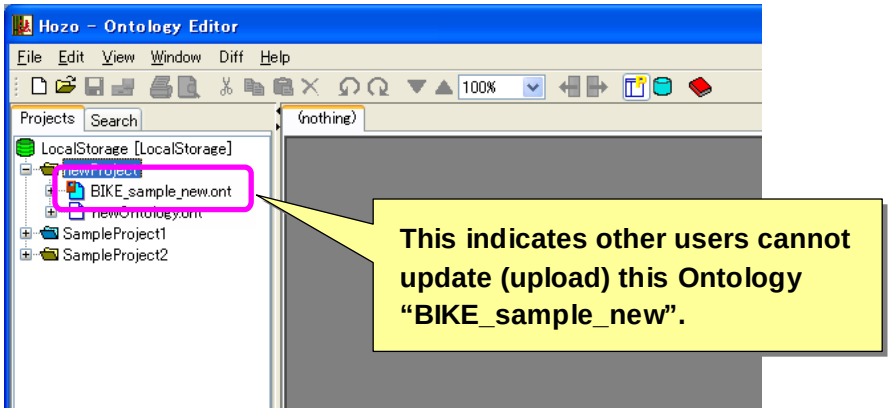


②Confirm the Ontology to be locked, and click the [OK] button to lock the Ontology file. A confirmation message will be displayed.



③ If you refresh the Project Management Tree, the locked Ontology will be displayed and other users will not be able to update the Ontology on the server.

[Note] When the above is performed, other users will see an icon indicating that the lock cannot be removed in their editors, as shown below.



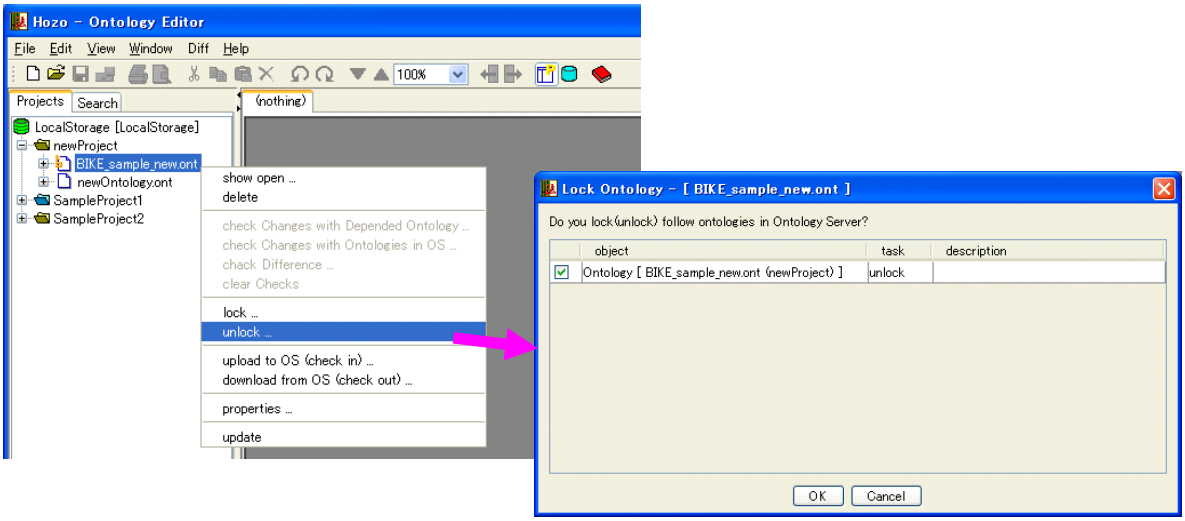
④ To remove the lock, right-click the Project Management Tree and select [Unlock…] and complete the operation as before.

[Attention] It is necessary to remove the lock with the tool that placed the lock.

(Reason) The information that the lock has been placed (i.e. the lock removal key) is stored in the folder of the tool on the local PC.

[Attention] In order to view the lock information or forcibly remove the lock, you must use the Ontology management tool.

[Reference] For details see chapter 4.3.3. “Locking Ontologies” in the Operating Manual.



5. Other, Supplementary Items

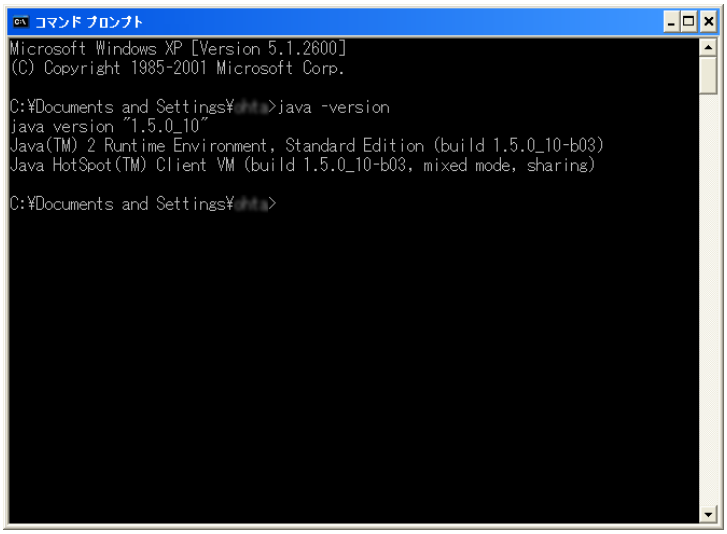
(1) Checking your Java Runtime Environment version

・With regards to start-up errors, if you are unable to start the software as described in chapter 1.5, please check your Java Runtime Environment version. Do this as follows.

<Windows>

① Open a command prompt.

② Type "java -version" (without quotes) and press enter to display the version of Java Runtime Environment currently installed.



③ If the installed version of Java is older than the one recommended (JRE/JDK 1.5.0_10 or higher), uninstall it and install a version of Java that will allow you to run the tools.

(2) Sever Connection Errors

・After performing initial settings and network settings with the dialogs, in some cases the screen may freeze due to incorrect setting information and network connection delays/errors.

- "Project path does not exist." If this sort of error message is displayed, please recheck your setting information.

- If the program does not start as described in the manual after several minutes, restart the tool and recheck your setting information.

6. Hozo Inquiries

・For questions regarding the Hozo Ontology Editor, please see the Ontology structuring technical support site (http://ontsupport.enegate.jp/ontology/), which is also the technical support site for this system.

・For questions on how to structure Ontologies, please see the guide to structuring Ontologies with Hozo (http://www.hozo.jp).

End

Appendix A　Descriptions of Menu Items

(1) Main Menu Items

- **"File" menu**

  [new File …] : create new Project or Ontology.

  [open File …] : load ontology file.

  [save] : save the data to a file.

  [save as …] : save the data to another file that has a different name.

  [save without Dependency …] : save the data without dependencies.

  [open Model Editor …] : launch Model Editor.

  [import …] : import from a hierarchy text / CSV formatted file

  [export …] : export the data to the file.

  [remove Backup Files …] : remove backup files.

  [set Page Format …] : set the page format of printers.

  [print Preview …] : show the printed image of the ontology data.

  [print …] : print the ontology data.

  [exit …] : terminate the editor.

  [quit] : quit the tool（The data is not saved）.

- **"Edit" menu**

  [undo] : undo the operation (Undo).

  [redo] : redo the operation (Redo).

  [refresh History] : clear the operation history.

  [up Slot] : move up the order of the slot.

  [down Slot] : move down the order of the slot.

  [input Axiom …] : edit the axiom of the concept or the slot.

  [delete] : delete the objects on the Browsing Pane.

  [select All] : select all objects on the Browsing Pane.

  [select Child Nodes] : select lower concepts of the concept.

  [cut] : cut the objects.

  [copy] : copy the objects.

  [paste] : paste the objects.

  [Tracking Back] : select the object that was selected right before.

  [Tracking Forward] : select the object that was selected just behind.

- **"View" menu**

  [Node View] : only display concepts on the Browsing Pane.

  [Gray View] : display as monochrome images. (for monochrome printers)

[arrange Nodes] : array on the vertical or horizontal direction.

[display Source] : show the source of the Ontology data with another window.

[Super Info.] : display the name of upper role concepts

[Influence Info.] : display with emphasis on influential concepts

[show Page Border] : display the border line of the printer

[set Canvas Size …] : set the canvas size

[change Depended Node View …] : set the mode of dependencies.

- **"Window" menu**

[open All] : open all of the inner edit panels.

[minimize All] : minimize all of the inner edit panels.

[close All] : close all of the inner edit panels.

[language …] : set the language of the tool, English / Japanese only

- **"Diff." menu**

[check Changes with Depended Ontology …] : check changes with depended Ontology.

[check Changes with Ontologies in OS …] : check changes with latest ontology in the server.

[check Difference …] : check changes with Ontology.

[clear Checks] : clear check marks on Browsing Pane.

- **"Help" menu**

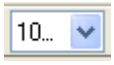
[about Help …] : show help.

[show QuickReference] : show the Quick Reference with Web Browser

[show User's Manual] : show the Operation Manual with Web Browser

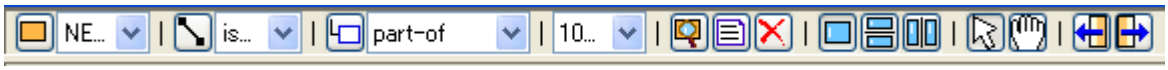
[Version Info …] : show the version information of this tool.

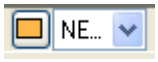
(2) Menu Items on Operation Tool Bar

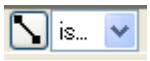
-  : create new Project or Ontology.
-  : load ontology file.
-  : save the data to a file.
-  : save the data to another file that has a different name.
-  : print the ontology data.
-  : show the printed image of the ontology data.
-  : cut the objects.
-  : copy the objects.
-  : paste the objects.
-  : delete the objects
-  : undo the operation (Undo).
-  : redo the operation (Redo).
-  : zoom out Browsing Pane
-  : zoom in Browsing Pane
- 

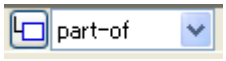
: select the scale of Browsing Pane.
-  : select the object that was selected right before.
-  : select the object that was selected just behind.
-  : display the Project Management Pane.
-  : display the Ontology Management Window.
-  : show help.

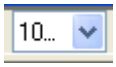
(3) Menu Items on Edit Tool Bar



- 

: are a button to create a concept and a list to select types of classes.
- 

: are a button to create a relation and a list to select types of relations.
- 

: are a button to create a slot (role concept) and a list to select types of slot.
- 

: is a list to select the scale of Browsing Pane.
- 
: is a button to select a class constraint.制約概念を選択します
- 
: is a button to edit the axiom.
- 
: is a button to change Browsing Pane to one view mode.
- 
: is a button to change Browsing Pane to vertical split screen mode.
- 
: is a button to change Browsing Pane to horizontal split screen mode.
- 
: is a button to change Browsing Pane to selection mode.
- 
: is a button to change Browsing Pane to shift mode.
- 
: is a button to select the object that was selected right before.
- 
: is a button to select the object that was selected just behind.

Appendix B　About Project Management Tree View

・In “Project Management Tree View”, this tool displays and manages following contents at a local directory.

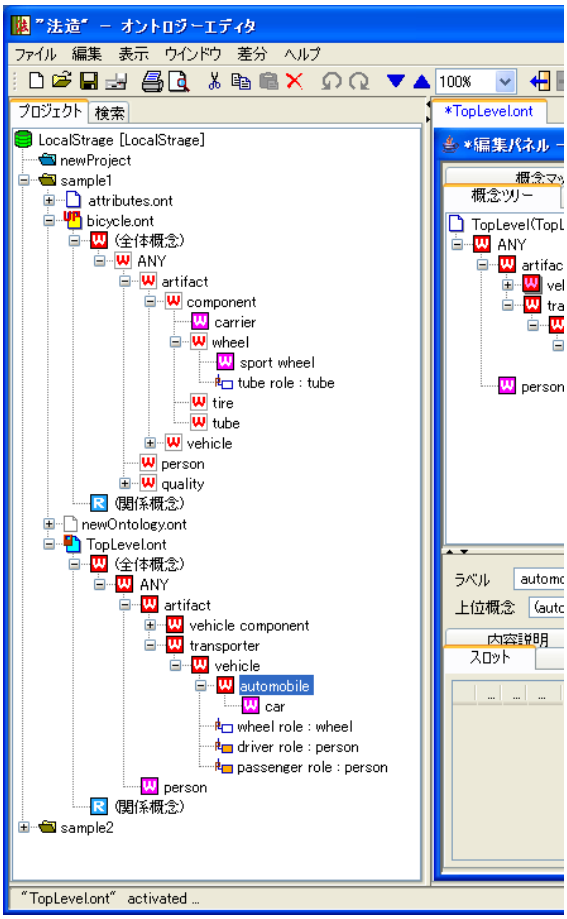
—”Project”（folder）

—”Ontology” (in the project)

—”Concept” (in the ontology)

—”Slot” (“Role Concept” in the concept)

・This following figure shows “Project Management Tree View” and describes what tree icons mean.



: The root folder

: Project folders

: Local project folders

: Ontology files

: Ontology updated in the server

: Ontology updated and locked in the server

: Ontology locked in the server

: Ontology can unlock

: Ontology updated in the local PC

: Ontology can unlock and updated in the local PC

: Ontology is locking and updated in the local PC

: Local ontology（without shadow）

: Wholeness Concepts

: Relation Concepts

: Referring Concepts
(that is defined by other ontology)

: Slot（part-of）

 : Slot（attribute-of）

 : Slot（overrided）