ETAS ASCET V6.4

Administration Guide

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Contents

1 Introduction

In this chapter, you can find information about the intended use, the addressed target group, and information about safety and privacy related topics.

Please adhere to the ETAS Safety Advice (accessible via **Help > Product Disclaimer** in the ASCET Component Manager or **Help > ETAS Safety Advice** in ASCET-DIFF) and to the safety information given in the user documentation.

ETAS GmbH cannot be made liable for damage which is caused by incorrect use and not adhering to the safety information.

1.1 Intended Use

The ASCET tools support model-based software development. In model-based development, you construct an executable specification – the model – of your system and establish its properties through simulation and testing in early stages of development. When a model behaves as required, it can be converted automatically to production quality code.

ASCET provides a multi-paradigm modeling framework, providing integrated support for a number of different modeling notations. These modeling notations abstract from low-level details, separating the concerns of what the system software must do from how it is realized in code executing in the ECU. ASCET can also interface directly with C code as a "low-level" specification language.

ASCET provides a systematic way to augment the high-level specification (referred to as the *physical model*) with the necessary information for target implementation (referred to as the *implementation model*). The implementation model covers the low-level details required to make the model run on target hardware.

The physical and implementation models are clearly separated in ASCET so that the design specification is not corrupted with implementation details that may change from project to project. Maintaining this separation also allows ASCET to support multiple implementation models for a single physical model, keeping the number of model variants low.

1.2 Target Group

This manual is directed at people who have to set up ASCET tools, e,g., tool administrators or system administrators who configure members of the ASCET product family for other users.

Familiarity with the ASCET product family and with the Microsoft Windows® 10 operating system is required. Knowledge of a programming language, preferably ANSI-C, can be helpful when using ASCET.

1.3 Classification of Safety Messages

The safety messages used here warn of dangers that can lead to personal injury or damage to property:

DANGER

DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE indicates a situation that, if not avoided, could result in damage to property.

1.4 Safety Information

Observe the following safety information when using the NVRAM capabilities of the ASCET-RP or ASCET-SE targets, to avoid injury to yourself and others as well as damage to property:

WARNING

Harm or property damage due to unpredictable behavior of vehicle or test bench

Wrongly initialized NVRAM variables can lead to unpredictable behavior of a vehicle or a test bench. This behavior can cause harm or property damage.

ASCET projects that use the NVRAM possibilities of ASCET-RP targets expect a *user-defined* initialization that checks whether all NV variables are valid for the current project, both individually and in combination with other NV variables. If this is not the case, all NV variables have to be initialized with their (reasonable) default values.

Due to the NVRAM saving concept, this is *absolutely necessary* when projects are used in environments where any harm to people and equipment can happen when unsuitable initialization values are used (e.g. in-vehicle-use or at test benches).

Adhere to the ETAS Safety Advice and the safety information given in the online help and user guides. You can open the ETAS Safety Advice from the main ASCET window with **Help > Product Disclaimer**. A PDF version is available on the installation medium: `Documentation\ETAS Safety Advice.pdf`

In addition, take all information on environmental conditions into consideration before setup and operation (see the documentation of your computer, hardware, etc.).

Further safety advice for this ETAS product is available in the ASCET V6.4 safety manual, available at ETAS upon request.

1.5 Data Protection

If the product contains functions that process personal data, legal requirements of data protection and data privacy laws shall be complied with by the customer. As the data controller, the customer usually designs subsequent processing. Therefore, he must check if the protective measures are sufficient.

1.6 Data and Information Security

To securely handle data in the context of this product, see the next sections about data and storage locations as well as technical and organizational measures.

1.6.1 Data and Storage Locations

The following sections give information about data and their respective storage locations for various use cases.

License Management

When using the ETAS License Manager in combination with user-based licenses that are managed on the FNP license server within the customer's network, the following data are stored for license management purposes:

Data

- Communication data: IP address
- User data: Windows user ID

Storage location

- FNP license server log files on the customer network

When using the ETAS License Manager in combination with host-based licenses that are provided as FNE machine-based licenses, the following data are stored for license management purposes:

Data

- Activation data: Activation ID

  Used only for license activation, but not continuously during license usage

Storage location

- FNE trusted storage

  `C:\ProgramData\ETAS\FlexNet\fne\license\ts`

Problem Report

When an error occurs, ASCET offers to send an error report to ETAS for trouble-shooting. ETAS uses the personal information to have a contact person in case of system errors.

The problem report may contain the following personal data or data category:

Data

- Communication data: IP address
- User data: Windows user ID, user name

Storage location:

- `EtasLogFiles<index number>.zip` in the ETAS-specific log files directory,

Additionally to the problem information that is entered by the users themselves, ASCET collects the available product-related log files in a zip archive to support the bug fixing process at ETAS. The zip file is named according to the pattern `EtasLogFiles<index number>.zip`.

This automatically created zip file contains the following:

- product-related log files created at installation time (necessary for uninstall action)
- ETAS log files stored in the ETAS log files directory matching the file name pattern `*.log`
- recursive registry export of ETAS (32bit)-key (and sub keys): `HKEY_CURRENT_USER\Software\ETAS`
- registry export of ETAS (32bit)-key (and sub keys): `HKEY_LOCAL_MACHINE\Software\ETAS`

All ETAS-related log files in the ETAS-specific log files directory and the zip archives created by the Problem Report feature can be removed after closing all ETAS applications if they are no longer needed.

1.6.2 Technical and Organizational Measures

This product does not itself encrypt the personal data that it records. Please ensure that the data recorded is secured by means of suitable technical or organizational measures in your IT system, e.g. by using classic anti-theft and access protection.

Personal data in generated files can be deleted by tools in the operating system.

Locations for Generated Files

Names and paths of files generated by ASCET may contain personal data, if they refer to the current user's personal directory or subdirectories (e.g., `C:\Users\<UserId>\Documents\...`).

If you do not want personal information to be included in the generated files, make sure of the following:

- The workspace of the product points to a directory without personal reference.
- All settings in the product (accessed via the menu function **Tools > Options** in the product) refer to directories and file names without personal reference.
- All project settings in the projects (accessed via the menu function **File > Properties** in the ASCET project editor) refer to directories and file names without personal reference.
- Windows environment variables (such as the temporary directory) refer to directories without personal reference because these environment variables are used by the product.

In this case, please also make sure that the users of this product have read and write access to the newly set directories.

2 About ASCET

The ASCET product family provides tools for model-based design and auto C code generation for embedded systems. It enables you to create graphical and textual models from which you can automatically generate safe and efficient C code that is well defined, maintainable, testable, and reusable.

ASCET-DIFF is a program that compares two ASCET models. This allows you to compare, e.g., two development states, and produce clear results in a short time.

2.1 Finding Out More

The ASCET product family (except ASCET-DIFF) provides online help and several PDF manuals. The following volumes are stored in the `ETAS\ETASManuals` folder.

- `ASCET V6.4 Installation.pdf`
- `ASCET V6.4 Getting Started.pdf`
- `ASCET V6.4 AUTOSAR Users Guide.pdf`
- `ASCET V6.4 AUTOSAR To ASCET Converter User Guide.pdf`
- `ASCET V6.4 Icon Reference Guide.pdf`
- `ASCET-RP V6.4 Users Guide.pdf`
- `ASCET-SE V6.4 Users Guide.pdf`
- `ASCET-SE V6.4 EHOOKS Add On Users Guide.pdf`

ASCET-DIFF provides online help and a PDF Getting Started guide. The latter, `ASCET-DIFF V6.4 Installation.pdf`, is stored on the installation disk.

Using the index, full text search, and hypertext links, you can find references fast and conveniently.

The ASCET, ASCET-RP, and ASCET-SCM online help can be accessed via the <F1> key in the respective windows.

The ASCET-DIFF online help can be accessed via the **Help > Help Contents** menu option.

3 ASCET – Option Customization

A company may want to restrict the possibilities to set ASCET options or project properties for several reasons, e.g., the following:

- Specific values for ASCET options/project properties are defined by, e.g., coding guidelines.
- If options were modified, the model or the generated code might be wrong or might not fit customers' needs.
- It is difficult to trace a problem back to changed options.

Section 3.1 describes the XML definition of an ASCET option/project property. The External Options mechanism (section 3.2) available in ASCET can be used to add user-defined options to ASCET, and the option customization feature (section 3.3 and 3.4) available in ASCET can be used to adjust default values of options, to make options read-only, and/or to hide options.

3.1 Option Definition

The definition of an option has the following basic format (code sections in *italics* must be replaced with suitable values for each option):

```
<OptionDeclaration
   xmlCategory="path"
   optionCategory="value"
   optionClass="type"
   attributeName="option name"
   optionFile="filename.xml"
   sensitive="true/false"
   visible="true/false">
   <Group>path</Group>
   <Label>text</Label>
   <Description>text</Description>
   <Tooltip>text</Tooltip>
   <InitialValue>value</InitialValue>
   <DefaultValue>value</DefaultValue>
   <Value>value</Value>[1)]
   <FileOption>definition</FileOption>[2)]
   <EnumerationOption>definition</EnumerationOption>[2]
   <ButtonOption>definition</ButtonOption>[2]
   <NumericOption>definition</NumericOption>[2]
</OptionDeclaration>
```

1) Not present in the automatically generated options file (cf. Page 12 and section 3.4.1); must be added manually. Effective only in `*.aoc.xml` files.
2) only available for a special `optionClass`

3.2 External Options in ASCET

User-defined options can be added to ASCET via a special XML file that you modify to suit your own requirements. The file is stored in the ASCET installation directory; for ASCET to recognize it, it must have the following extension:

`*.aod.xml`

For more details, see the ASCET online help, "Component Manager" section.

3.3 Customization Features

Of the attributes and items that form the option declaration of an existing option (see section 3.1), only a few can be customized.

	Customization		
Attribute/Item	**allowed**	**not supported**	**forbidden**
`optionCategory`			+
`attributeName`			+
`optionClass`			+
`xmlCategory`			+
`sensitive`	**+**		
`visible`	**+**		
`optionFile`			+
`<Group>`		+	
`<Label>`		+	
`<Description>`		+	
`<Tooltip>`		+	
`<InitialValue>`		+	
`<DefaultValue>`	**+**		
`<Value>`	**+**		
`<FileOption>`			+
`<EnumerationOption>`			+
`<ButtonOption>`			+
`<NumericOption>`			+

Tab. 3-1 Customizable option attributes – overview

ASCET remains master of the options, i.e. you *cannot* use customization to do the following:

- delete existing options
- create new options
- change option types
- rename internal option identifiers
- use an invalid or wrong value as default value
- change option dependencies (you cannot change, e.g., that an option becomes editable only if another option has a certain value)

3.4 Customization Procedure

General Procedure:

A Installing and starting ASCET

B Creating an option customization file named `*.aoc.xml`

C Copying the `*.aoc.xml` file(s) into the ASCET installation directory

This can be done, e.g., via customized installations.

D (Re-)Starting ASCET

Upon starting, ASCET first reads the built-in option definitions, and then the customized option definitions in the `*.aoc.xml` files.

Creating a template for the `*.aoc.xml` file

1. In the component manager, select **Tools > Options** to open the ASCET options dialog window.
2. In the options dialog window, make sure that the focus is in the tree view.
3. Press <ALT> + <D>.

   The Windows file selection window opens. The default file name `OptionDeclarations.aoc.xml` is suggested. The file extension `.xml` is predefined and cannot be changed.

   The extension `*.aoc.xml` is mandatory for option customization files.
4. Enter path and file name for the option customization file and click on **Save**.

   The file is saved. An extract of the file is given in section 3.4.1 on page 13.

> **NOTE**
>
> The generated file contains option types that cannot be customized (see also section 3.4.2). You must remove these option types before you can use the file for option customization.

Creating the `*.aoc.xml` option customization file

1. Open the automatically created `*.aoc.xml` file in a suitable editor.
2. Open a new, empty `*.aoc.xml` option configuration file.
3. Copy the following lines into the new file.

```
<?xml version="1.0" encoding="US-ASCII"?>
<OptionDeclarations
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="externalOptions.xsd">

</OptionDeclarations>
```

4. Copy the `<OptionDeclaration>` sections of the options you want to customize into the new file between the `<OptionDeclarations ...>` and `</OptionDeclarations>` tags.

   As an alternative, you can remove at least the options that cannot be customized (see section 3.4.2 on page 16) from the automatically created `*.aoc.xml` file.
   For clarity, you can remove any options you do not want to customize.

5. For the options you want to customize, proceed as follows.
   i. Go to the respective `<OptionDeclaration>` section.
   ii. Set the `visible` attribute to `true` to show the option.
   iii. Set the `visible` attribute to `false` to hide the option.
   iv. Set the `sensitive` attribute to `true` to make the option editable.
   v. Set the `sensitive` attribute to `false` to make the option read-only.
   vi. Enter the desired `<Value>`.
   vii. Enter the desired `<DefaultValue>`.

   > **NOTE**
   > Changing an option's default value does *not* change the current value of that option.

6. Save the option customization file.

For the option customization to become effective, the option customization file must be copied to the ASCET installation directory of each ASCET user.

3.4.1 Generated Option Customization File – Extract

```
<?xml version="1.0" encoding="US-ASCII"?>

<OptionDeclarations
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="externalOptions.xsd">
<OptionDeclaration
   optionCategory="FILE"
   attributeName="UserActionsBufferSize"
   optionClass="EtasNumericOption"
   xmlCategory="ToolSettings"
   visible="true"
   sensitive="true"
   optionFile="d:\ETASData\ASCET6.4\User\ml_user\
     userSettings.xml">
   <Group></Group>
   <Label>User Actions Buffer Size</Label>
   <Description>Define the size of last
     &amp;lt;i&amp;gt;n&amp;lt;/i&amp;gt; user actions
     that are stored and transmitted on a walkback
   </Description>
```

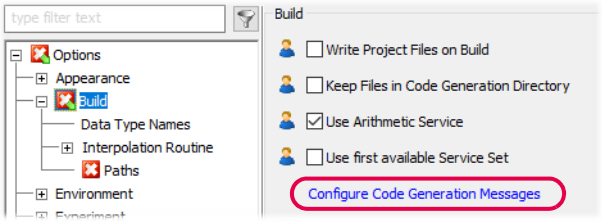
```
    <Tooltip>Number of user actions to be Stored</Tooltip>
    <InitialValue>100</InitialValue>
    <DefaultValue>100</DefaultValue>
    <NumericOption>
      <MinValue>0</MinValue>
      <MaxValue>1000</MaxValue>
    </NumericOption>
  </OptionDeclaration>
  ...
  <OptionDeclaration
    optionCategory="FILE"
    attributeName="WatermarkShow"
    optionClass="EtasContainerOption"
    xmlCategory="EditorSettings\BlockDiagram"
    visible="true"
    sensitive="true"
    optionFile="d:\ETASData\ASCET6.4\User\ml_user\
      userSettings.xml">
    <Group>Appearance\Editors\Block Diagram</Group>
    <Label>Show Watermark</Label>
    <Description>Show Watermarks (e.g. the currently
      selected View) in BDE</Description>
    <Tooltip>Show Watermarks in BDE</Tooltip>
    <InitialValue>true</InitialValue>
    <DefaultValue>true</DefaultValue>
  </OptionDeclaration>
  <OptionDeclaration
    optionCategory="FILE"
    attributeName="WatermarkSize"
    optionClass="EtasNumericOption"
    xmlCategory="EditorSettings\BlockDiagram"
    visible="true"
    sensitive="true"
    optionFile="d:\ETASData\ASCET6.4\User\ml_user\
      userSettings.xml">
    <Group>Appearance\Editors\Block Diagram</Group>
    <Label>Watermark Size (px)</Label>
    <Description>Fontsize of the Watermark in BDE
      </Description>
    <Tooltip>Size of the Watermark</Tooltip>
    <InitialValue>20</InitialValue>
    <DefaultValue>20</DefaultValue>
    <NumericOption>
      <MinValue>1</MinValue>
```

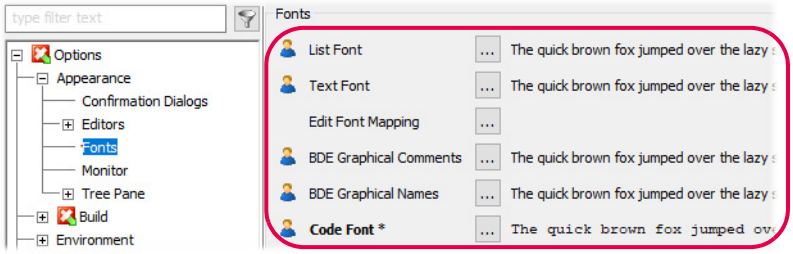
```
      <MaxValue>200</MaxValue>
    </NumericOption>
  </OptionDeclaration>
  ...
  <OptionDeclaration
    optionCategory="FILE"
    attributeName="PageNumberShow"
    optionClass="EtasBooleanOption"
    xmlCategory="EditorSettings\BlockDiagram"
    visible="true"
    sensitive="true"
    optionFile="d:\ETASData\ASCET6.4\User\ml_user\
      userSettings.xml">
    <Group>Appearance\Editors\Block Diagram</Group>
    <Label>Show Page Number</Label>
    <Description>Show the page number in the BDE
      </Description>
    <Tooltip>Show Page Number in BDE</Tooltip>
    <InitialValue>false</InitialValue>
    <DefaultValue>false</DefaultValue>
  </OptionDeclaration>
  ...
  <OptionDeclaration
    optionCategory="FILE"
    attributeName="DisplayConnectionPortSelectionBox"
    optionClass="EtasBooleanOption"
    xmlCategory="EditorSettings\BlockDiagram"
    visible="true"
    sensitive="true"
    optionFile="d:\ETASData\ASCET6.4\User\ml_user\
      userSettings.xml">
    <Group>Appearance\Editors\Block Diagram</Group>
    <Label>Display Connection Port Selection Box</Label>
    <Description>Only in Connection Mode: With the mouse
      over the diagram elements there is an extra
      selection box showed for the selection of the
      connection ports.</Description>
    <Tooltip>Display the Connection Port Selection Box
      </Tooltip>
    <InitialValue>true</InitialValue>
    <DefaultValue>true</DefaultValue>
  </OptionDeclaration>
  ...
  </OptionDeclarations>
```

3.4.2 Options that Cannot be Customized

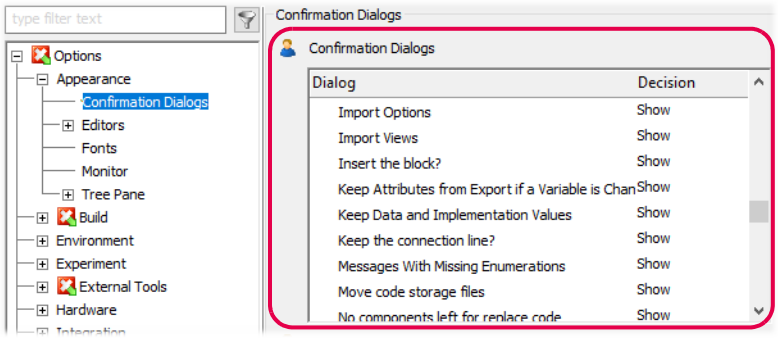
Only options with simple values can be customized. Options with other than simple values cannot be customized, they can only be hidden and/or set to read-only.

- button and link options (`optionClass="EtasButtonOption"`), e.g. the marked ones shown below

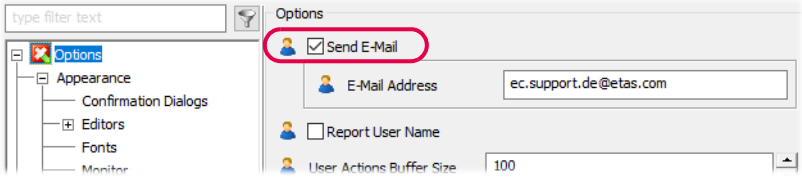




- options used to set several items (`optionClass="EtasMultiSelectConfigurationOption"`), e.g. the one shown below

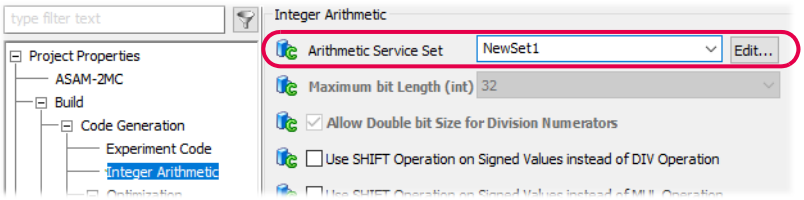


- container options (`optionClass="EtasContainerOption"`), i.e. options with dependent child options, e.g. the one shown below

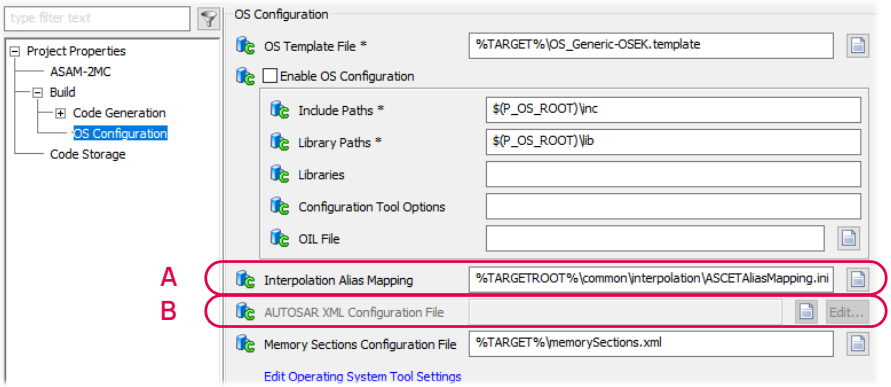


> **NOTE**
>
> If you hide a container option, its child options are hidden, too.

- options with `optionClass="EtasEditableEnumerationOption"`, e.g. the one shown below



- options with `optionclass="EtasEditableXMLFileOption"` (A) or `"EtasPathTokenFileOption"` (B), e.g. the ones shown below



3.4.3 Example `*.aoc.xml` Option Customization File

By default, the options **Display Connection Port Selection Box**, **Show Watermark** and **Show Page Number** in the "Block Diagram" node of the ASCET options dialog window are visible and editable. The option **Watermark size (px)** is visible, too, and is editable as long as **Show Watermark** is activated.

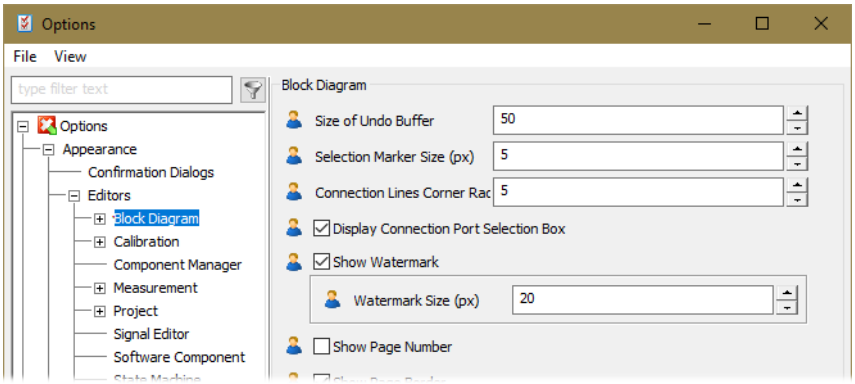


Fig. 3-1 Options with system default values

The following `*.aoc.xml` file is used to customize the four options. Changed settings are marked in **bold blue**, the option names are marked in **bold black**.

```
<?xml version="1.0" encoding="US-ASCII"?>

<OptionDeclarations
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="externalOptions.xsd">
```

```
<OptionDeclaration
  optionCategory="FILE"
  attributeName="WatermarkShow"
  optionClass="EtasContainerOption"
  xmlCategory="EditorSettings\BlockDiagram"
  visible="true"
  sensitive="false"
  optionFile="d:\ETASData\ASCET6.4\User\ml_user\
    userSettings.xml">
  <Group>Appearance\Editors\Block Diagram</Group>
  <Label>Show Watermark</Label>
  <Description>Show Watermarks (e.g. the currently
    selected View) in BDE</Description>
  <Tooltip>Show Watermarks in BDE</Tooltip>
  <InitialValue>true</InitialValue>
  <DefaultValue>true</DefaultValue>
</OptionDeclaration>
<OptionDeclaration
  optionCategory="FILE"
  attributeName="WatermarkSize"
  optionClass="EtasNumericOption"
  xmlCategory="EditorSettings\BlockDiagram"
  visible="true"
  sensitive="true"
  optionFile="d:\ETASData\ASCET6.4\User\ml_user\
    userSettings.xml">
  <Group>Appearance\Editors\Block Diagram</Group>
  <Label>Watermark Size (px)</Label>
  <Description>Fontsize of the  Watermark in BDE
    </Description>
  <Tooltip>Size of the Watermark</Tooltip>
  <InitialValue>20</InitialValue>
  <DefaultValue>50</DefaultValue>
  <Value>50</Value>
  <NumericOption>
    <MinValue>1</MinValue>
    <MaxValue>200</MaxValue>
  </NumericOption>
</OptionDeclaration>
<OptionDeclaration
  optionCategory="FILE"
  attributeName="PageNumberShow"
  optionClass="EtasBooleanOption"
```

```
    xmlCategory="EditorSettings\BlockDiagram"
    visible="true"
    sensitive="false"
    optionFile="d:\ETASData\ASCET6.4\User\ml_user\
      userSettings.xml">
    <Group>Appearance\Editors\Block Diagram</Group>
    <Label>Show Page Number</Label>
    <Description>Show the page number in the BDE
      </Description>
    <Tooltip>Show Page Number in BDE</Tooltip>
    <InitialValue>false</InitialValue>
    <DefaultValue>true</DefaultValue>
    <Value>true</Value>
  </OptionDeclaration>
  <OptionDeclaration
    optionCategory="FILE"
    attributeName="DisplayConnectionPortSelectionBox"
    optionClass="EtasBooleanOption"
    xmlCategory="EditorSettings\BlockDiagram"
    visible="true"
    sensitive="true"
    optionFile="d:\ETASData\ASCET6.4\User\ml_user\
      userSettings.xml">
    <Group>Appearance\Editors\Block Diagram</Group>
    <Label>Display Connection Port Selection Box</Label>
    <Description>Only in Connection Mode: With the mouse
      over the diagram elements there is an extra
      selection box showed for the selection of the
      connection ports.</Description>
    <Tooltip>Display the Connection Port Selection Box
      </Tooltip>
    <InitialValue>true</InitialValue>
    <DefaultValue>true</DefaultValue>
    <Value>false</Value>
  </OptionDeclaration>
</OptionDeclarations>
```

The file is copied to a user's ASCET installation directory, and ASCET is started. The "Block Diagram" node now looks as follows:

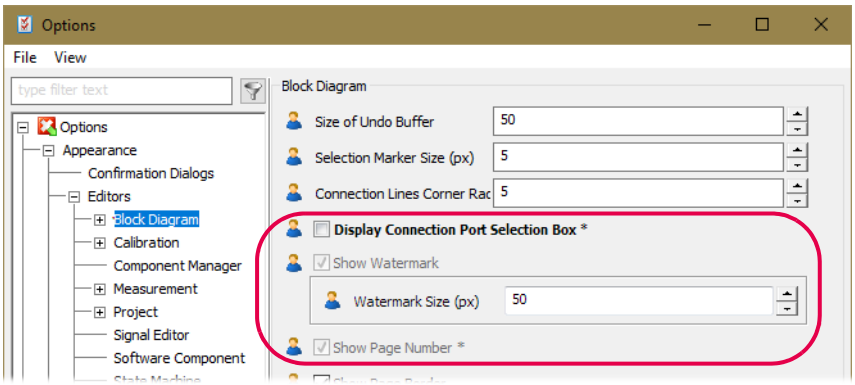


Fig. 3-2 Options with changed `<Value>` and `<DefaultValue>`

Show Watermark and **Show Page Number** are now read-only. Since the `*.aoc.xml` file contains `<Value>` parameters, the current values of the options are changed (cf. Fig. 3-1).

If you omit the `<Value>` parameters, and change only the `<DefaultValue>` parameters, the "Block Diagram" node looks slightly different than in Fig. 3-2: The option values are still the same as the system default (cf. Fig. 3-1), since the option customization file did not change the current option values.

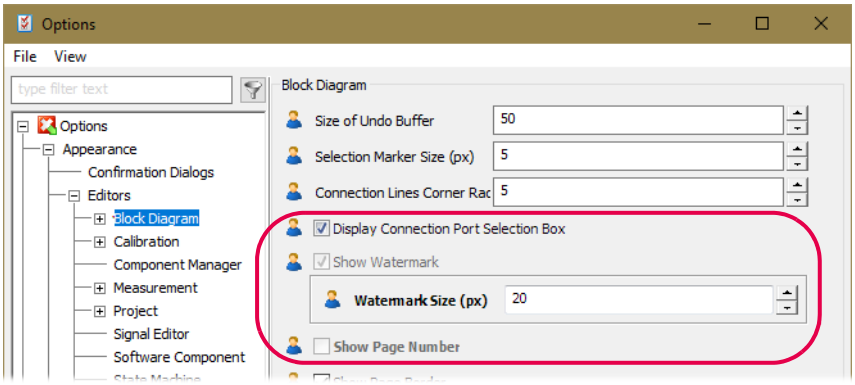


Fig. 3-3 Options with changed `<DefaultValue>`

The new default values can be set via the **System Defaults** button, but keep in mind that this button restores *all* default values in the selected node.

When ASCET is closed and restarted, the changed values and default values are still in place.

4 ASCET-SCM

4.1 File Extension

ASCET-SCM administrates ASCET model information in CM repositories based on ASCET export files, in a binary format (`*.exp`) and/or an XML-based format (`*.amd`). See the ASCET online help for more information on the export formats.

By default, ASCET-SCM contains two drivers: SVN and MSSCCI. The exchanged XML-based artifacts differ between the ASCET standard export and each ASCET-SCM driver as follows:

ASCET standard export: You can export ASCET components in AMD format (several `*.amd` files for each exported component) or in AXL format (the `*.amd` files of each component are combined into one ZIP file named `*.axl`).

Depending on the ASCET export settings, the `*.amd` files may contain component paths, ASCET experiments etc. or not (non-fixed export settings).

ASCET-SCM SVN driver: The SVN driver uses ZIP files with extension `*.zip` for exchange with the repository. These ZIP files contain all `*.amd` files of a component, an XML file with some SCM data for quick and easy access, and optionally the binary export file of the component.

No further ASCET export settings are considered (fixed export settings).

ASCET MSSCCI driver (or MSSCCI based specific drivers): The MSSCCI driver uses ZIP files with extension `*.axl` for exchange with the repository. The content of this `*.axl` file is the same as the ZIP file of the SVN driver.

This means that two different AXL file formats exist. The main differences are

- one AXL format includes an XML file with SCM data
- one AXL format has fixed export settings, the other has non-fixed export settings (and may thus include component paths, ASCET experiments, etc.)

Both `*.axl` file formats can be imported with standard ASCET as well as ASCET-SCM (MSSCCI based drivers). However, a warning is issued when ASCET-SCM imports (load/check-out) an ASCET standard `*.axl` file:

`"[ASCET V5.x format …]".`

This file without the SCM data was not created under ASCET-SCM control and its potentially different export settings may lead to unpredictable inconsistencies that cannot be managed by the SCM driver.

To make the two formats easier to distinguish, the MSSCCI driver configuration file, e.g. `MSSCCIDriver.gui.xml`, contains an option to set the file extension to be used in ASCET-SCM, i.e., the `<StorageFileExtension>` option. Possible values are `AXL`, `SXL`, and `AXL/SXL`.

The `<StorageFileExtension>` option is located in the `<Basics>` area of the driver configuration file.

EXAMPLE

```
<?xml version="1.0" encoding="utf-8"?>
<ScmServerSettings xmlns:xsi="http://www.w3.org/2001/
XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/
XMLSchema">
  <Basics>
    <StorageFileExtension>SXL</StorageFileExtension>
    <AlwaysUpdateSandbox>true</AlwaysUpdateSandbox>
  </Basics>
  ...
```

4.2 Registering Driver DLL

For the communication with the connected CM tool, ASCET-SCM must know the location of its driver DLL.

In case of the SVN driver, the registration is done during the ASCET-SCM installation by user interaction.

CM tools that provide an MSSCCI interface generally register themselves in the following registration path:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\
    SourceCodeControlProvider\InstalledSCCProviders
```

Some CM tools might miss this registration, or the registration might include an invalid path (e.g., due to an upgrade installation). When working with an MSSCCI driver (or MSSCCI-based specific driver), a message informs the user that the driver DLL cannot be found:

```
No MSSCCI provider found at <pathname>. Please check your MSS-
CCI provider installation.
```

In this case, you must manually ensure that the registry is made consistent by creating/changing the following entries.

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\
    SourceCodeControlProvider\InstalledSCCProviders]
"MKS SCC Integration"="SOFTWARE\\Mortice Kern
    Systems\\Integrations\\SCC\\Provider\\"
[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Mortice
    Kern Systems\Integrations\SCC\Provider]
"SccServerName"="MKS SCC Integration"
"SccServerPath"="C:\\Program Files (x86)\\
    Integrity\\ILMClient11.0\\bin\\mkssiscc.dll"
```

The example shows the registry entries for the PTC Integrity tool.

5 ASCET-DIFF – Configuring Default Settings

A company may want to use a predefined set of comparison configurations, different from the ETAS default configurations, with ASCET-DIFF.

Section 5.1 describes how comparison configurations are treated in ASCET-DIFF, and section 5.2 explains how to change default comparison configurations.

> **NOTE**
>
> Unlike ASCET options, you cannot set the ASCET-DIFF comparison configurations to read-only. Users can change your company defaults.

Section 5.3 contains a list of the ASCET-DIFF properties and their potential values.

5.1 ASCET-DIFF Preferences

The "Preferences" window of ASCET-DIFF stores various comparison configurations.

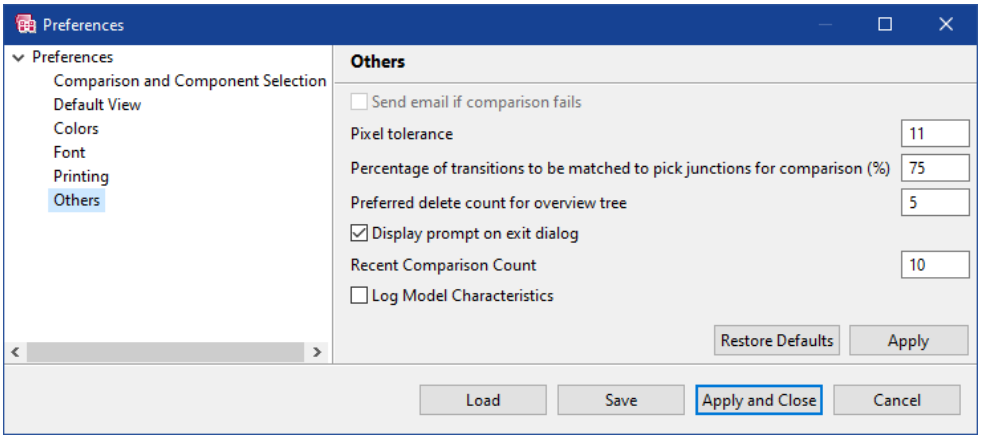


Fig. 5-1 ASCET- DIFF – "Preferences" window

After the installation of ASCET-DIFF, the ETAS default configurations are available in an ASCII file named `DamePreferences.properties` and stored in the `plugins\com.etasgroup.ascet.diff.mainui_1.0.0\resource` folder in the ASCET-DIFF installation directory.

If a user starts ASCET-DIFF for the first time, the options in the "Preferences" window are set to the values in the `DamePreferences.properties` file. In addition, the file is copied to the `workspace\<user name>` folder in the ASCET-DIFF workspace location. If the user changes settings in the "Preferences" window, these changes are stored in `...\workspace\<user name>\DamePreferences.properties`.

The **Restore Defaults** button available in each node of the "Preferences" window can be used to reset changed values and restore the defaults in a node.

5.2 Changing Default Settings

Changing the ETAS default configurations to company configurations consists of the following steps:

- adapting a copy of the `DamePreferences.properties` file to your company's needs (see section 5.3 and "Example – `DamePreferences.properties` File")
- distributing the changed `DamePreferences.properties` (see "Distributing the Changed `DamePreferences.properties` File")

5.3 Adapting the `DamePreferences.properties` File

Tab. 5-1 lists the entries in `DamePreferences.properties` file and the location of the respective option in the "Preferences" window. The entries are sorted alphabetically in the table; sorting in the file may differ.

`*.properties` entry	possible values	name / location in "Preferences" window
`bdIndex`	`[0..8]`	**BD**, "Default View" node
`cbrIndex`	`[0..6]`	**AUTOSAR Calibration Interface**, "Default View" node
`ccodeIndex`	`[0..9]`	**C Code**, "Default View" node
`compare`	`flat` / `quick` / `detailed`	**Comparison Variants** field, "Comparison and Component Settings" node
`compareComponents`	`sameName` / `sameOID` / `twoSelected`	**Component selection option** field, "Comparison and Component Settings" node
`compareOpenClosedHierarchy`	`true` / `false`	**Compare open and closed hierarchy state**, "Comparison and Component Settings" node
`compareProcess`	`name` / `index`	**Process comparison option** field, "Comparison and Component Settings" node
`compareSeqCallOrder`	`true` / `false`	**Compare order of sequence calls**, "Comparison and Component Settings" node
`containerIndex`	`[0..3]`	**Container**, "Default View" node
`csrIndex`	`[0..6]`	**AUTOSAR Client Server**, "Default View" node
`deletedElement`	`[0..255],[0..255],[0..255]`	**Right new item color**, "Colors" node
`diffElement`	`[0..255],[0..255],[0..255]`	**Different item color**, "Colors" node

*.properties entry	possible values	name / location in "Preferences" window
doSort	**NOTE** Obsolete option; has no effect and does not need to be customized.	
enumIndex	[0..2]	**Enum**, "Default View" node
esdlIndex	[0..8]	**ESDL**, "Default View" node
Font	all fonts on your PC	**Font**, "Font" node
FontSize	8, 9, 10, 11	**Font Size**, "Font" node
ignoreBDComments	true / false	**Ignore comments in Graphics**, "Comparison and Component Settings" node
ignoreCompManagerComments	true / false	**Ignore comments in Component Manager**, "Comparison and Component Settings" node
ignoreElementComments	true / false	**Ignore comments in Elements**, "Comparison and Component Settings" node
ignoreElementOID	true / false	**Ignore element OID and method OID**, "Comparison and Component Settings" node
ignoreESDLComments	true / false	**Ignore comments, spaces and blank lines in ESDL/ CCode**, "Comparison and Component Settings" node
ignoreLayout	true / false	**Ignore layout**, "Comparison and Component Settings" node
ignoreNotes	true / false	**Ignore notes**, "Comparison and Component Settings" node
ignorePosition	true / false	**Ignore label position**, "Comparison and Component Settings" node

*.properties entry	possible values	name / location in "Preferences" window
ignoreSequenceCalls	true / false	**Ignore sequence calls**, "Comparison and Component Settings" node
includeUserIdPrintPage	true / false	**Include user ID in print page**, "Printing" node
logFeature	true / false	**Log Model Characteristics**, "Others" node
logoFilepath	path/name of graphic with extension *.jpg/*.png/*.bmp	**Logo file path**, "Printing" node
minimumScaleFactor	number	**Minimum scale factor for Intelligent Layout**, "Printing" node
modeGroupIndex	[0..2]	**Mode group**, "Default View" node
newElement	[0..255],[0..255],[0..255]	**Left new item color**, "Colors" node
nvdIndex	[0..6]	**AUTOSAR NVData Interface**, "Default View" node
preferedDeleteCount	integer number	**Prefered delete count for overview tree**, "Others" node
printHeaderPage	true / false	**Print Header Page**, "Printing" node
projectIndex	[0..12]	**Project**, "Default View" node
promptOnExit	true / false	**Display prompt on exit dialog**, "Others" node
propagatedElement	[0..255],[0..255],[0..255]	**Propagated item color**, "Colors" node

*.properties entry	possible values	name / location in "Preferences" window
recentComparisonEntries	integer number	**Recent Comparison Count**, "Others" node
recordIndex	[0..6]	**Record**, "Default View" node
sameElement	[0..255],[0..255],[0..255]	**Identical item color**, "Colors" node
sendEmail	NOTE Obsolete option; has no effect and does not need to be customized.	
sidiff	true / false	**Compare Block Diagram/State Machine with SiDiff**, "Comparison and Component Settings" node
smIndex	[0..8]	**Statemachine**, "Default View" node
snrIndex	[0..6]	**AUTOSAR Sender Receiver**, "Default View" node
swcIndex	[0..11]	**AUTOSAR Software Component**, "Default View" node
tolerance	integer number	**Pixel Tolerance**, "Others" node
triggerLevel	[0..100]	**Percentage of transitions to be matched to pick junctions for comparison (%)**, "Others" node
uncomparedElement	[0..255],[0..255],[0..255]	**Not compared item color**, "Colors" node

Tab. 5-1 Entries and their possible values in `DamePreferences.properties` and their location in the "Preferences" window of ASCET-DIFF

Open the file in a text editor and edit the file entries according to your needs. Possible values for each option are given in Tab. 5-1. If desired, you can enter comment lines, i.e. lines of the form `# <comment text>` or remove unchanged lines.

5.3.1 Example – `DamePreferences.properties` File

The original version of `DamePreferences.properties` is an unsorted list of `option=value` pairs.

The following example is a changed version of `DamePreferences.properties`. In addition, the entries have been sorted according to the nodes in the "Preferences" window they refer to. Changed settings are marked in **`blue bold`** font.

```
#Fri May 17 15:08:35 CEST 2013
#
#Comparison and Component Settings
compare=flat
compareComponents=twoSelected
compareOpenClosedHierarchy=true
compareProcess=index
compareSeqCallOrder=false
ignoreBDComments=true
ignoreCompManagerComments=false
ignoreElementComments=true
ignoreElementOID=true
ignoreESDLComments=true
ignoreLayout=false
ignoreNotes=false
ignorePosition=true
ignoreSequenceCalls=false
sidiff=true
#
#Default View
bdIndex=0
cbrIndex=0
ccodeIndex=0
containerIndex=0
csrIndex=0
esdlIndex=0
enumIndex=0
modeGroupIndex=0
nvdIndex=0
projectIndex=0
recordIndex=0
smIndex=0
snrIndex=0
```

```
#
#Colors node
deletedElement=255,0,0
diffElement=0,0,255
newElement=0,255,0
sameElement=0,0,0
uncomparedElement=128,128,128
propagatedElement=255,128,0
#
#Font node
Font=Tahoma
FontSize=8
#
#Printing node
logoFilepath=C:\CI\icons\BMP\AscetDiff_48.bmp
minimumScaleFactor=1.0
printHeaderPage=true
#
#Others node
logFeature=false
preferedDeleteCount=5
promptOnExit=true
recentComparisonEntries=10
sendEmail=false
tolerance=11
triggerLevel=75
#
doSort=true
```

5.3.2 Distributing the Changed `DamePreferences.properties` File

To distribute the changed `DamePreferences.properties` file to the users' ASCET-DIFF installations, the following steps are required:

A Identify the ASCET-DIFF installation path.

You can read the path from a Registry entry.

- On a 64bit operating system, the entry is located at `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\ETAS\ASCET-DIFF\6.4`.
- On a 32bit operating system, the entry is located at `HKEY_LOCAL_MACHINE\SOFTWARE\ETAS\ASCET-DIFF\6.4`.

B Add `\plugins\com.etasgroup.ascet.diff.mainui_1.0.0\resource` to the ASCET-DIFF installation path.

The resulting path looks similar to this path:

```
C:\ETAS\ASCET-DIFF6.4\plugins\
     com.etasgroup.ascet.diff.mainui_1.0.0\resource
```

C Copy the changed `DamePreferences.properties` file to the resulting path.

Of course, these steps can be executed by a script.

As soon as the changed `DamePreferences.properties` file is copied to the proper location, its content is available via the **Restore Defaults** button in the ASCET-DIFF "Preferences" window.

> **NOTE**
>
> The changed `DamePreferences.properties` file does *not* overwrite existing user-defined preference changes.

6 Contact Information

Technical Support

For details of your local sales office as well as your local technical support team and product hotlines, take a look at the ETAS website:

www.etas.com/en/hotlines.php

ETAS offers trainings for its products:

www.etas.com/academy

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Figures and Tables

Index

Symbols

A

C

D

E

O

P

S

T

X