

Release Notes

eVision 6.7.1 Service Pack

Release 6.7.1.299

May 30, 2008

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Fixes and Improvements

These release notes describe the changes to the **eVision** libraries introduced since release 6.7.1, including intermediate releases.

Starting from release 6.7.1.137, the latest version of **eVision** is distributed in a **Service Pack** that has to be installed on top of an existing **eVision 6.7.1** installation.

Upgrade to the latest **eVision 6.7.1** version just requires launching the **eVision Update Tool** to install the **Service Pack**. Refer to the "**ReadMe – eVision Update tool**" document for details.

1.1. Documentation

An error occurred in the documentation delivered with eVision 6.7.1.0: **Borland C++ Builder 5.0 is no longer supported since eVision 6.6.**

For more information, see the "**Supported IDE table**" in the "**Documentation Update for CD2006-1.pdf**" document.

1.2. Fixes and Improvements in Release 6.7.1.299

Solved Issue in EasyMatrixcode

Now, under Microsoft Visual studio 6.0 (C++), matrix code reading operations are faster in release configuration than in debug configuration.

Solved Issue in EasyGauge

A memory leak was reported when using PointGauge under .NET. Now, this problem is fixed.

Solved Issue in WorldShape

Another memory leak was reported when calling the SensorToWorld method in .NET. Now, this problem is fixed.

1.3. Fixes and Improvements in Release 6.7.1.248

Improvements in EasyBarcode

Now, EasyBarcode is able to deal with strings that contain NULL characters.

For more information, see the "**Documentation Update for CD2006-1.pdf**" document.

Important note. Decoding string that contain NULL characters is only supported in C++.

Now, the Code 13 symbology is also available in the .NET API.

Solved Issue in EasyBarcode

Now, the EAN 13 checksum is correctly verified.

Solved Issue in EasyMulticam

The MC namespace, erroneously removed in eVision 6.7.1.137, has been restored.

Solved Issue in EasyGauge

In EWorldShape, the `SensorToWorld` method now returns coordinates with a much improved precision.

Solved Issue in EasyImage

The `ImgAnalyseHistogramBW16` method now works correctly.

Solved Issue in EasyOCV

The specific case of uniform gray level images has not been taken into account for the computation of the foreground and background reference gray levels. This led to a wrong contrast score computation. Now, if a uniform image is loaded to perform an inspection, EasyOCV produces an error.

1.4. Fixes and Improvements in Release 6.7.1.137

eVision Update Tool

The *eVision Update Tool* is a one-file application that installs an update of eVision 6.7.1 **on top of an existing eVision 6.7.1 installation**. If the eVision 6.7.1 installation cannot be found on the system, no update will take place. Refer to the "**ReadMe – eVision Update tool**" document for details.

Improvement in EasyMatrixcode

Now, EasyMatrixCode can be used in a multithreaded application. More specifically, instances of MatrixCodeReader can be built and used in different threads but a single MatrixcodeReader object can only be used in a single thread.

For more information concerning the multithreading in eVision, see the "**Documentation Update for CD2006-1.pdf**" document.

Solved Issues in EasyImage

Now, the `ContourArea` method returns correct values for all contour tracing modes, even under ActiveX.

In some cases, the `Distance` function provided incorrect results.

Now, when the `ImgOverlay` function is used, the entire destination image is correctly updated by the overlay.

In some specific cases, the `Imgconvert` function provided incorrect results.

Solved Issue in EasyMatch

Now, an empty model file can be loaded after it has been saved without performing a `Learn` operation.

Solved Issues in EasyGauge

In `EWorldShape`, the calibration failed when calling the `AutoCalibrateDotGrid` function, in some specific cases.

In `EWorldShape`, the results of a call to the `CalibrateSucceeded` function after a `LandMark` calibration are now the same in debug and in release mode.

Solved Issue in EasyObject

A memory leak could happen under some specific circumstances when using the `GetNextObjPtr` method.

Solved Issue in Easy

Now, the dpi value is correctly stored when an image is saved.

Solved Issue in EasyOCR

The `HitChars` function is now operative under Delphi.

Solved Issue in EasyFind

Now, all the angular values returned by `EasyFind` are always comprised in the range [- a half turn, + a half turn].

1.5. Fixes and Improvements in Release 6.7.1.39

Improvement in EasyOCR

New methods used to load or save the contents of a font have been added to the `EOCR` class:

```
C++:    void Save( FILE* file)
        void Load( FILE* file)
```

For more information, see the "[Documentation Update for CD2006-1.pdf](#)" document.

Solved Issue in EasyOCR

The copy constructor now accurately copies the OCR object.

Warning: the copy constructor copies only the font parameters from a pre-existing object.

1.6. Fixes and Improvements in previous Patches

General Purpose

Fixes

Under some specific circumstances, calling eVision methods from different threads in the same process, on a multi-core or multi-processor machine, could lead to a significant processing time increase.

This malfunction is solved since eVision 6.7.1 Patch ZD.

With eVision 6.7.1 Patch A, the Dallas dongle was not detected anymore.

This malfunction is solved since eVision 6.7.1 Patch C.

The processing time had increased when multithreading on dual CPU computers since last release. The execution time when using multiple threads with eVision 6.7.1 was longer than with eVision 6.7.

This malfunction is solved since eVision 6.7.1 Patch C.

Easy

Features

The following methods have been added to the JpegHandler interface:

```
int GetUpFieldBufferAddr() const;  
int GetUpFieldBufferSize() const;  
int GetDownFieldBufferAddr() const;  
int GetDownFieldBufferSize() const;  
int GetTimeStampLowDWord() const;  
int GetTimeStampHighDWord() const;
```

For more information, see the "[Documentation Update for CD2006-1.pdf](#)" document.

This improvement is available since eVision 6.7.1 Patch ZE.

Fixes

The relative position of the mouse pointer was not accurate when quickly dragging thin ROIs.

This malfunction is solved since eVision 6.7.1 Patch L.

EasyBarCode

Fixes

After decoding a barcode with the Code93 symbology, EasyBarCode erroneously reported the checksum as incorrect.

This malfunction is solved since eVision 6.7.1 Patch ZC.

EasyImage

Fixes

In EasyImage, using the `ImgDistance` function with ActiveX, either returned an access violation or an incorrect distance measurement, depending on the image size.

This malfunction is solved since eVision 6.7.1 Patch Z.

EasyBGA

Fixes

The clutter was not detected in some very specific cases.

This malfunction is solved since eVision 6.7.1 Patch W.

EasyFind

Features

New methods and properties used to enable or disable drawing options have been added to the `FoundPattern` class:

C++: - The `FoundPattern` structure owns three new properties:

BOOL DrawCenter

BOOL DrawboundingBox

BOOL DrawFeaturePoints

- The current `FoundPattern::Draw` method becomes obsolete and is superseded by the following new method:

void FoundPattern::Draw(HDC hDC, FLOAT32 f32zoomX = 1.f, FLOAT32 f32zoomY = 0.f, FLOAT32 f32panX = 0.f, FLOAT32 f32panY = 0.f)

ActiveX: - The `FoundPatternArray` control has three new properties similar as the C++ ones. The three properties apply to the current pattern, just like the `DrawCurrentPattern` method.

- The `DrawCurrentPatternWithEdges` method becomes obsolete and is superseded by the properties described above.

For more information, see the "[Documentation Update for CD2006-1.pdf](#)" document.

This improvement is available since eVision 6.7.1 Patch W.

Fixes

When the `PatternFinder.LocalSearchMode` parameter was changed from the default value, EasyFind did not always interpolate with sub-pixel precision.

This malfunction is solved since eVision 6.7.1 Patch ZD.

There were some rare issues with the backwards compatibility of EasyFind models. These have been fixed.

This malfunction is solved since eVision 6.7.1 Patch L.

EasyGauge

Fixes

In some cases, the learning process missed some significant edges or erroneously used non-significant edges, which led to subsequent problems in the finding process.

This malfunction is solved since eVision 6.7.1 Patch W.

There were some issues in the way outliers were rejected when using an `EWedgeGauge`.

This malfunction is solved since eVision 6.7.1 Patch O.

The wedge circle was sometimes incorrectly fit.

This malfunction is solved since eVision 6.7.1 Patch O.

The `SetAmplitude` method of the `CircleGauge` object accepted only angle values in Radians.

This malfunction is solved since eVision 6.7.1 Patch I.

The drawing of wedge and circle gauges attached to a `FrameShape` could be incorrect if the gauges were partial (not forming a full circle).

This malfunction is solved since eVision 6.7.1 Patch G.

The zooming and panning factors are no longer saved with the other parameters in the model files.

This malfunction is solved since eVision 6.7.1 Patch E.

EasyMatrixCode

Features

New methods and properties used to retrieve data not coded as ASCII characters from a matrix code have been added to the `MatrixCode` object:

C++: `Vector<UINT8> Matrixcode::DecodedData`

ActiveX: `MatrixCode.GetDecodedData(index As Long) As Integer`

`MatrixCode.DecodedDataLength`

.NET: `System.Int16 MatrixCode.DecodedDataElement[System.Int32 index]`

`System.Int32 MatrixCode.DecodedDataLength`

For more information, see the "[Documentation Update for CD2006-1.pdf](#)" document.

This improvement is available since eVision 6.7.1 Patch A.

Fixes

The decoding time was excessively increased for the decoding of flipped matrix code.

This malfunction is solved since eVision 6.7.1 Patch ZE.

The Time Out message was always issued after about 3 seconds independently of the specified delay.

This malfunction is solved since eVision 6.7.1 Patch ZE.

In some rare cases, a matrix code correctly decoded with the `Read` method could not be decoded or was incorrectly decoded by the `Learn` method.

This malfunction is solved since eVision 6.7.1 Patch ZE.

Some specific matrix codes yielded different results before and after a learning operation.

This malfunction is solved since eVision 6.7.1 Patch J.

Some specific matrix codes could no longer be read after being learned.

This malfunction is solved since eVision 6.7.1 Patch I.

A run-time error occurred with some specific matrix codes.

This malfunction is solved since eVision 6.7.1 Patch G.

EasyObject

Fixes

The neutral class of the double thresholding in EasyObject required a minimum of 2 gray levels. This minimum is now reduced to one gray level.

This malfunction is solved since eVision 6.7.1 Patch ZB.

The `ECodedImage::GetObjFirstRunPtr` method could sometimes return an erroneous value.

This malfunction is solved since eVision 6.7.1 Patch Q.

The object count was sometimes incorrectly computed in the continuous mode.

This malfunction is solved since eVision 6.7.1 Patch O.

In the continuous mode, there was no sure way to reinitialize the `CodedImage` after calls to the `BuildObjects` method.

A new function has been added to do this:

C++: **void ECodedImage.ResetContinuousMode**

ActiveX: **ECodedImage.ResetContinuousMode**

.NET: **void Euresys.eVision.CodedImage.ResetContinuousMode**

You must call this function, not `RemoveAllObjects`, to reset your `CodedImage` object before doing a new series of `BuildObjects`.

For more information, see the "[Documentation Update for CD2006-1.pdf](#)" document.

This malfunction is solved since eVision 6.7.1 Patch J.

When a single object was removed, the features calculated for it were not correctly cleared. This could lead to an object added later inheriting these.

This malfunction is solved since eVision 6.7.1 Patch I.

In the continuous mode of EasyObject, all images used needed to have the same height.

For more information on the continuous mode of EasyObject, see the "**Documentation Update for CD2006-1.pdf**" document.

This malfunction is solved since eVision 6.7.1 Patch G.

EasyOCR

Fixes

The `EOCR::AddPatternFromImage` method now works correctly, regardless of whether the `BuildObjects` method has been called or not.

This malfunction is solved since eVision 6.7.1 Patch W.

The absolute threshold setting was not correctly interpreted.

This malfunction is solved since eVision 6.7.1 Patch O.

Characters touching the border of the image could not be read.

This malfunction is solved since eVision 6.7.1 Patch J.

EasyOCV

Fixes

The constructors for the `OCVChar` and the `OCVText` objects were not documented and missing.

For more information, see the "**Documentation Update for CD2006-1.pdf**" document.

This malfunction is solved since eVision 6.7.1 Patch Y.

Some properties such as `NumContourPoints` and `LocationMode` were erroneously not accessible because in the read only `—GetOnly—` state.

This malfunction is solved since eVision 6.7.1 Patch Y.

EWorldShape

Features

The robustness of the automatic calibration has been improved.

This improvement is available since eVision 6.7.1 Patch C.

Fixes

When saving an EWorldShape and its attached gauges calibrated using the bilinear or quadratic empirical modes, the calibration coefficients were not correctly saved.

This malfunction is solved since eVision 6.7.1 Patch E.

License Mediator

Fixes

An application using the older MultiCam for Picolo driver could not access eVision licenses stored on a Picolo board.

This malfunction is solved since eVision 6.7.1 Patch ZC.

C++ Library

General Fixes

The number of warnings during compilation under Borland C++ Builder 6.0 has been significantly reduced.

This malfunction is solved since eVision 6.7.1 Patch E.

A single, real memory leak of 1024 bytes was reported when using eVision.

This malfunction is solved since eVision 6.7.1 Patch C.

EasyMultiCam Fixes

The “Camera Windowing” sample program could crash upon exit under some specific circumstances.

This malfunction is solved since eVision 6.7.1 Patch O.

With Borland C++ Builder 6.0 and eVision 6.7.1, a link error occurred.

This malfunction is solved since eVision 6.7.1 Patch J.

.NET

Easy Fixes

A small memory leak could happen under some specific circumstances when creating and destroying Image objects, or when using drawing functions.

This malfunction is solved since eVision 6.7.1 Patch W.

ARGB32 images were not drawn correctly.

This malfunction is solved since eVision 6.7.1 Patch R.

EasyAVI Features

The `ImageSequence` object has been added to the eVision .NET objects. This means that the EasyAVI library is now available under .NET.

For more information about the EasyAVI library, please refer to the *eVision User's Guide* and *eVision C++ Reference Guide*.

This improvement is available since eVision 6.7.1 Patch I.

EasyBGA Features

Graphical interaction methods used to retrieve the shape closest to the mouse cursor have been added to the `Euresys.eVision.Bga` object.

`void Euresys.eVision.Bga.SetCursor(System::Int32 X, System::Int32 Y)`

`void Euresys.eVision.Bga.Closest()`

`Euresys.eVision.Shape Euresys.eVision.Bga.ClosestShape` [Read-Only]

For more information, see the "**Documentation Update for CD2006-1.pdf**" document.

This improvement is available since eVision 6.7.1 Patch J.

EasyGauge Fixes

Some EasyGauge methods and properties return `Euresys.eVision.Shape` objects. In .NET environment, it was not possible to cast these objects into other objects such as `FrameShape`, `PointGauge` or `CircleGauge`.

This malfunction is solved since eVision 6.7.1 Patch ZC

A system exception was sporadically raised and not properly handled by eVision in the EasyGauge library under .NET.

This malfunction is solved since eVision 6.7.1 Patch ZB.

EasyMultiCam Fixes

Under specific circumstances, an "ExecutionEngineException" could be received.

This malfunction is solved since eVision 6.7.1 Patch R.

ActiveX

EasyFind Fixes

The new EasyFind interface has been added to the ActiveX in the form of two new controls, `PatternFinder` and `FoundPatternArray`. See the updated *eVisionVb.chm* manual for more information about these new controls.

This malfunction is solved since eVision 6.7.1 Patch E.

EasyBarcode Features

The manual location methods for the `Barcode` object were missing and have been added:

`EBarcode.SetDragable(Dragable As Boolean, Daughters As Boolean)`

`EBarcode.SetResizable(Resizable As Boolean, Daughters As Boolean)`

EBarCode.SetRotatable(Rotatable As Boolean, Daughters As Boolean)

EBarCode.SetCursor(X As Long, Y As Long)

EBarCode.HitTest(Daughters As Boolean) As Boolean

EBarCode.Drag(X As Long, Y As Long)

For more information, see the "**Documentation Update for CD2006-1.pdf**" document.

This improvement is available since eVision 6.7.1 Patch I.

EasyImage Fixes

The `VerticalMirror` and `HorizontalMirror` methods of the `EasyMain` control now accept BW16 images.

This malfunction is solved since eVision 6.7.1 Patch L.

EasyObject Fixes

The `ECodedImage.BuildObjectHoles` function was inoperative.

This malfunction is solved since eVision 6.7.1 Patch I.

EasyAccess

EasyBGA Fixes

When an inspection failed, the resulting error message could hinder further image browsing.

This malfunction is solved since eVision 6.7.1 Patch E.

EJpegHandler Fixes

With a PicoJet-X board, no `CallBack` was received.

This malfunction is solved since eVision 6.7.1 Patch V.

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