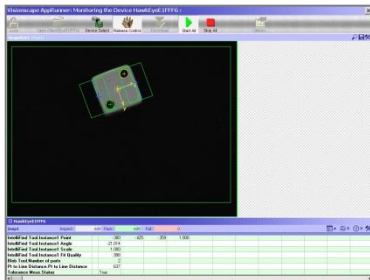
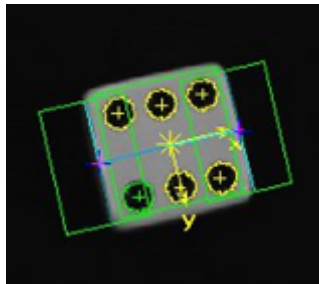
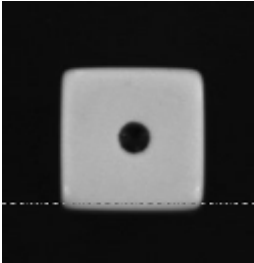


Visionscape[®]

Training and running a simple job
using Visionscape software



Agenda



- 1. Finding location & orientation of a simple part**
- 2. Checking part by identifying certain features**
- 3. Making a simple dimensional measurement**
- 4. Accommodating movement and rotation of part**
- 5. Triggering inspection via digital input**
- 6. Indicating pass/fail through digital output**
- 7. Communicating results through Ethernet network**
- 8. Calibrating smart camera in real-world units**
- 9. Deploying application with AppRunner**

Double-click and open the
Visionscape FrontRunner
application

Visionscape Version 3.7.2

Edition 2008

Build 18

MICROSCAN.

Initializing FrontRunner

Visionscape FrontRunner - HawkEyeE1FFF6

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Stopped

Login to Device HawkEyeE1FFF6

User Name: hawkeye

Password: xxxxxxxx

OK Cancel

No Program on PC for Device

Click here to select

Log in

Take control of the camera

Start by connecting to the smart camera

The screenshot displays the Visionscape FrontRunner software interface. The title bar reads "Visionscape FrontRunner - HawkEyeE1FFF6 (pc=<unnamed job> dev=DemoRM_HE1610T_barcode-DM.avp)". The menu bar includes "File", "View", and "Help". The toolbar contains icons for "1744_01", "HawkEyeE1FFF6", "Add Btn", and a die icon. The main workspace shows a die on a black background. The left sidebar has an "Inspection Snapshot" panel. The right sidebar contains icons for "Editor", "Reports", "Calibration", "I/O", and "Network". The bottom status bar shows "Inspection - Inputs" and "0.0°".

Click here to start a new job

Use a simple die as a sample part

The screenshot displays the Visionscape FrontRunner software interface. The main window title is "Visionscape FrontRunner - HawkEyeE1FFF6 (pc=<unnamed job> dev=DemoRM_HE1610T_barcode-DM1.avp)". The interface includes a menu bar (File, View, Help), a toolbar with various icons, and a central workspace. A dialog box titled "Insert Step" is open, showing a list of tools under the "Image/PreProcessing" tab. The "IntelliFind Tool" is highlighted with a blue selection box. A callout box on the left points to this tool with the text "Select the IntelliFind Tool". Another callout box at the bottom right contains the text "Click and drag to select a region and drop a tool". The bottom of the interface shows a status bar with "Inspection - Inputs" and a "Default Datum Order" dropdown menu.

Visionscape FrontRunner - HawkEyeE1FFF6 (pc=<unnamed job> dev=DemoRM_HE1610T_barcode-DM1.avp)

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Editing Inspection: 0: Inspection

Inspection Snapshot

Select the IntelliFind Tool

Insert Step

Analysis Tools Image/PreProcessing Measurements Program Control Script

- BarCode Tool
- Blob Tool
- DataMatrix Tool
- Edge Tool
- Fast Edge
- Fast Edge Group
- Flaw Tool
- IntelliFind Tool
- OCR OCRFixedFont Tool
- OCR OCRTrainableFont Tool
- OCVFont Tool
- OCVFontless Tool
- OCVRuntimeTool
- OnePt Locator
- Template Find
- ThreePt Locator
- TwoPt Locator
- Vector Tool
- VectorGroup Tool

Click and drag to select a region and drop a tool

Inspection Snapshot Output Valid Formatted Output

Default Datum Order

Inspection - Inputs

The screenshot displays the Visionscape FrontRunner software interface. The main window shows a grayscale image of a part with a central feature. A red rectangular box, labeled "IntelliFind Setup", is positioned around the feature. A blue arrow points from a text box to the "Train" button in the software's toolbar. The interface includes a menu bar (File, View, Help), a toolbar with various icons, and a sidebar on the right with buttons for Editor, Reports, Calibration, I/O, and Network. The bottom of the window shows the "IntelliFind Tool" and "IntelliFind Setup" tabs, along with a "Default Datum Order" dropdown and an "IntelliFind Tool - Inputs" section.

Visionscape FrontRunner - HawkEyeE1FFF6 (pc=<unnamed job> dev=DemoRM_HE1610T_barcode-DM.avp)

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Editing Inspection: 0: Inspection

Click here to train

Inspection Snapshot
■ IntelliFind Tool

IntelliFind Setup

Position the tool and search area and click Train

IntelliFind Tool IntelliFind Setup

Default Datum Order

IntelliFind Tool - Inputs

Editor
Reports
Calibration
I/O
Network

Visionscape FrontRunner - HawkEyeE1FFF6 (pc=<unnamed job> dev=DemoRM_HE1610T_barcode-DML.vvp)

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

Click here to remove unwanted parts of the model

HawkEyeE1FFF6

Model : Untitled Model1

Model Creation

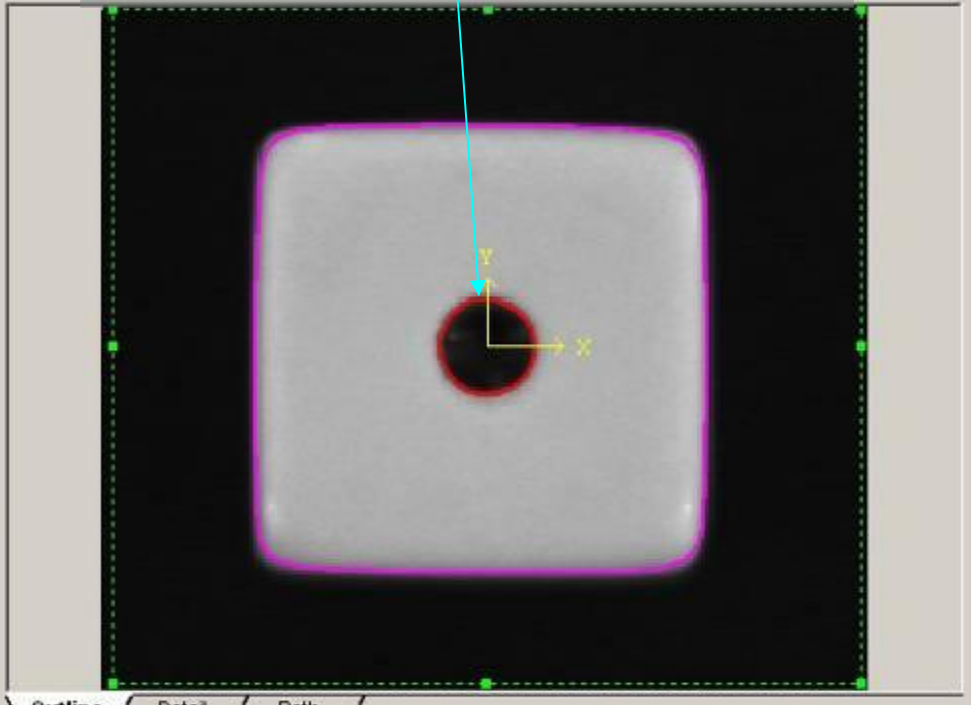
Contour Detection

- Automatic Levels
- Outline Level: 4
- Detail Level: 1
- Contrast Threshold: 17
- Adaptive Normal Sensitivity
- Tracking Inertia: 0

Feature Selection

none less normal more all

Build Model



Show

- Image
- Dim
- Normal
- Bright
- Bars

Bounding Area

- Bottom: 172
- Top: 345
- Left: 235
- Right: 427

Model Contents

ID	Required	Location
0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Features Reference Points Parameters

Add Delete Locate Analyze Model

Messages

Outline Detail Both

Crop Model Revert Apply OK Cancel

Open the Editor again to fine-tune the part model which the Intellifind Tool picked automatically

Editor

Reports

Calibration

I/O

Network

The screenshot displays the Visionscape FrontRunner software interface. The title bar reads "Visionscape FrontRunner - HawkEyeE1FFF6 (pc=<unnamed job> dev=DemoRM_HE1610T_barcode-DM.avp)". The main window shows a dark image of a square object with a central feature, overlaid with a green bounding box and yellow dimension lines. A cyan arrow points from a text box to a button in the toolbar. The interface includes a menu bar (File, View, Help), a toolbar with various icons, and a sidebar on the right with panels for Editor, Reports, Calibration, I/O, and Network. The bottom status bar shows "Snapshot - Inputs".

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Editing Inspection: 0: Inspection

Inspection
Snapshot
IntelliFind Tool

Editor
Reports
Calibration
I/O
Network

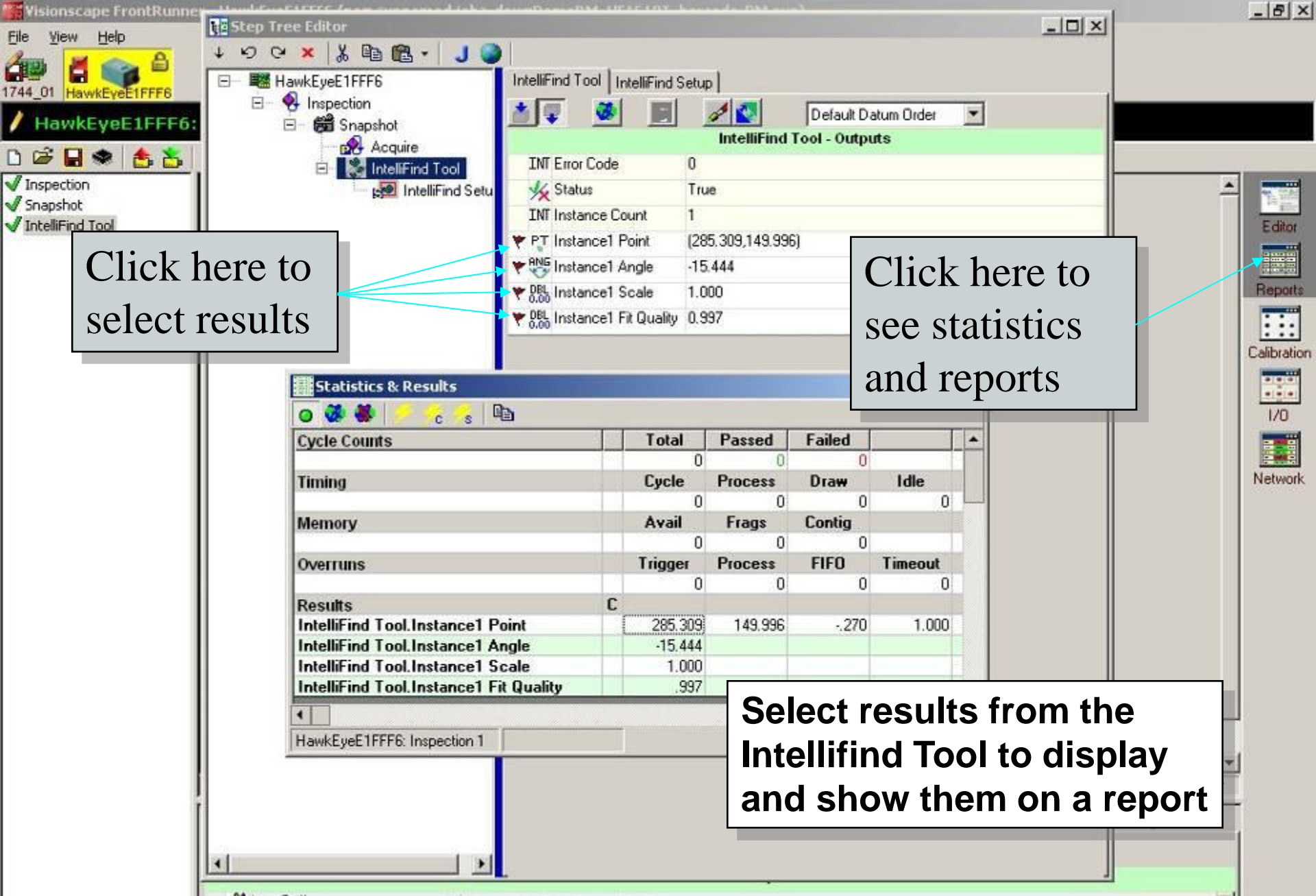
Snapshot Acquire IntelliFind Tool GainOffset

Default Datum Order

Snapshot - Inputs

Click here

Try out on the PC by clicking the Tryout button



Click here to select results

Click here to see statistics and reports

Select results from the IntelliFind Tool to display and show them on a report

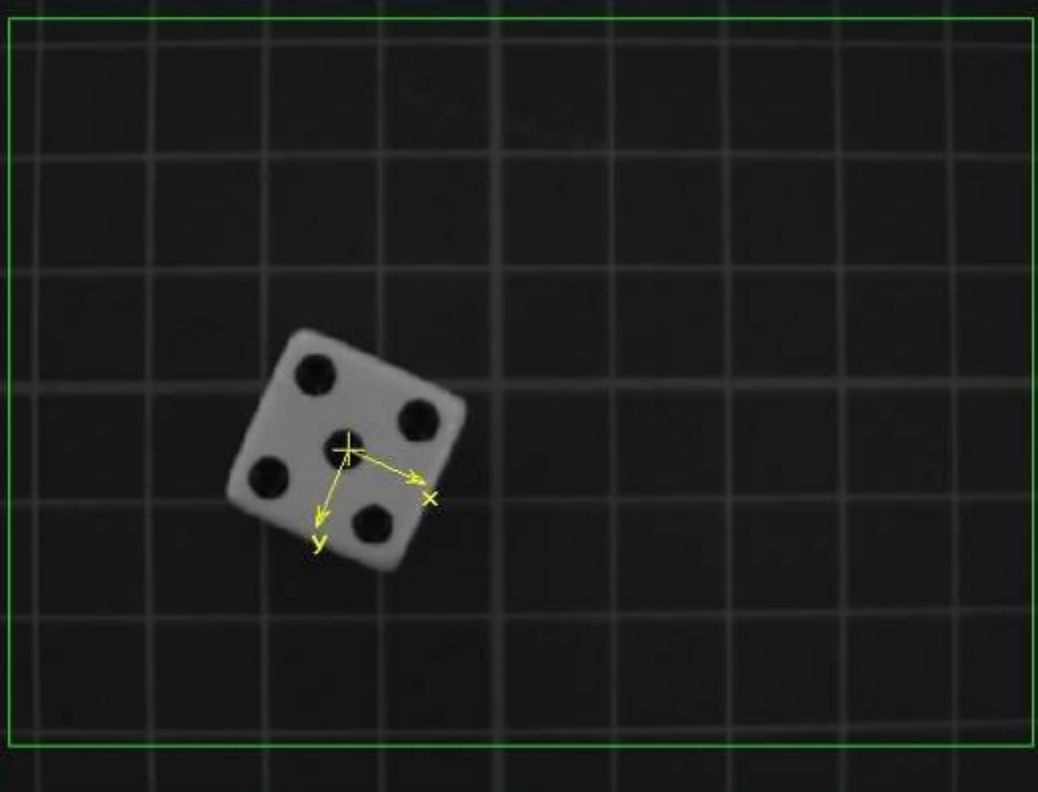
Visionscape FrontRunner - HawkEyeE1FFF6 (pc=<unnamed job>)

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Running

Snapshot1 (Insp1)



Download job and run on the smart camera

HawkEyeE1FFF6

Insp1 Inspect: 732 Pass: 509 Fail: 223

Cycle	79	Cyc Worst	104	Process	46	Draw	0
PPM	757	PPM Worst	576	Idle	32	DMA	0
Buffers	3 of 12 used (25%)			Overruns	None		

Visionscape FrontRunner - HawkEyeE1FFF6 (pc=<unnamed job>)

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Editing Inspection: 0: Inspection

Inspection
Snapshot
IntelliFind Tool
OnePt Locator
Rect Warp
Blob Tool
BlobFilter

Step Tree Editor

HawkEyeE1FFF6

- Inspection
 - Snapshot
 - Acquire
 - IntelliFind Tool
 - OnePt Locator
 - Rect Warp
 - Blob Tool
 - BlobFilter

Blob Tool | BlobFilter | AutoThreshold

Blob Tool - Inputs

InputBuffer	Rect Warp.W
Use Autothreshold	<input checked="" type="checkbox"/>
Low Threshold	0
High Threshold	75
Blob Polarity	Dark Parts
Minimum Blob size	100
Maximum Blob size	1000000
Ignore blobs that touch the ROI	<input type="checkbox"/>
Min Total Area	0.000
Max Total Area	15000.000

Default Datum Order

Blob Tool - Inputs

OnePt Locator

Use Setup View to insert more tools:
OnePt Locator follows the part based on the results of the Intellifind Tool

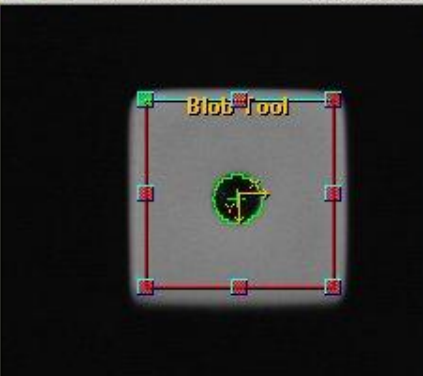
Visionscape FrontRunner - HawkEyeE1FFF6 (pc=<unnamed job>)

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Editing Inspection: 0: Inspection

Inspection
Snapshot
IntelliFind Tool
✓ OnePt Locator
Rect Warp
Blob Tool
BlobFilter



Step Tree Editor

- HawkEyeE1FFF6
 - Inspection
 - Snapshot
 - Acquire
 - IntelliFind Tool
 - OnePt Locator
 - Rect Warp
 - Blob Tool**
 - BlobFilter

Blob Tool - Inputs

InputBuffer	Rect Warp.W
Use Autothreshold	<input checked="" type="checkbox"/>
Low Threshold	0
High Threshold	75
Blob Polarity	Dark Parts
Minimum Blob size	100
Maximum Blob size	1000000
Ignore blobs that touch the ROI	<input type="checkbox"/>
Min Total Area	0.000
Max Total Area	15000.000
Min Number of Blobs	0
Max Number of Blobs	5000
Pass On No Data	<input type="checkbox"/>
Graphics Level	Show Details
Use Input Mask	<input type="checkbox"/>
	Default

Click to view and setup the Blob Tool to count dots

Blob tool inside the OnePt Locator

Blob Tool | BlobFilter | AutoThreshold

Default Datum Order

Blob Tool - Inputs

Visionscape FrontRunner - HawkEyeE1FFF6 (pc=<unnamed job>)

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Running

Snapshot1 (Insp1)



Run job again to see the results below and distance measurement graphics in the image

Insp1		Inspect:	687	Pass:	606	Fail:	81
Cycle	89	Cyc Worst	92	Process	51		
PPM	671	PPM Worst	652	Idle	32		
Buffers	3 of 12 used (25%)			Overruns	None		

IntelliFind Tool.Instance1 Point	393.249	254.454	-0.229	1.000
IntelliFind Tool.Instance1 Angle	-13.106			
IntelliFind Tool.Instance1 Scale	1.000			
IntelliFind Tool.Instance1 Fit Quality	998			



Visionscape FrontRunner - HawkEyeE1FFF6 (pc=dice.avp dev=DCYDemo.avp)

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Editing Inspection: 0: Inspection

Step Tree Editor

- HawkEyeE1FFF6
 - Inspection
 - Snapshot
 - Acquire
 - IntelliFind Tool
 - IntelliFind Setup
 - OnePt Locator
 - Rect Warp
 - Blob Tool
 - BlobFilter
 - Fast Edge
 - Fast Edge
 - Pt to Line Distar
 - Tolerance

Acquire - Inputs

Picture Mode	Acquire from Camera
File List	<empty>
Trigger	<none>
Trigger Polarity	<none>
Lighting	Physical Input Virtual Point
Exposure Time (us)	Sensor Point Slave Sensor
Pic Expose IO	TTL Input
Pic Done IO	RS422 Input
Trigger Overrun IO	Serial Trigger
Process Overrun IO	<Unassigned>

**Return to the Editor
to setup a trigger
for the inspection**

Inspector Panel (Right): Editor, Reports, Calibration, I/O, Network

Visionscape FrontRunner - HawkEyeE1FFF6 (pc=dice.avp dev=DCYDemo.avp)

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Editing Inspection: 0: Inspection

Step Tree Editor

- Inspection
 - Snapshot
 - IntelliFind Tool
 - OnePt Locator
 - Rect Warp
 - Blob Tool
 - BlobFilter
 - Fast Edge
 - Fast Edge
 - Pt to Line Distance
 - Tolerance Meas

HawkEyeE1FFF6

- Inspection
 - Snapshot
 - Acquire
 - Calibration Blob Step
 - BlobFilter
 - IntelliFind Tool
 - IntelliFind Setup
 - OnePt Locator
 - Rect Warp
 - Blob Tool
 - BlobFilter
 - Fast Edge
 - Fast Edge
 - Pt to Line Distance
 - Tolerance Meas

Inspection | Snapshot | Output Valid | Formatted Output

Default Datum Order

Inspection - Inputs

<input checked="" type="checkbox"/> Use Default Pass Criteria	<input checked="" type="checkbox"/>
<input type="checkbox"/> Criteria for Inspection Pass	
<input type="checkbox"/> Busy Signal IO	Physical 1
<input type="checkbox"/> Minimum Busy Signal Duration (ms)	0
<input type="checkbox"/> Busy Signal Polarity	Low
<input type="checkbox"/> Select Results to Upload	IntelliFind Tool.Instance1 Point IntelliFind Tool.Instance1 Angle IntelliFind Tool.Instance1 Scale IntelliFind Tool.Instance1 Fit Quality Blob Tool.Number of parts
<input checked="" type="checkbox"/> Keep Last Failed Data	<input checked="" type="checkbox"/>
<input type="checkbox"/> Status Output	Physical 2
<input type="checkbox"/> Ready to Run Output	Physical Output

- <none>
- Physical Output
- Virtual Point
- Strobe Point
- Analog Output
- TTL Output

Specify digital outputs for good/bad parts

The screenshot displays the Visionscape FrontRunner interface. The main window is titled "HawkEyeE1FFF6: Editing" and shows a "Step Tree Editor" on the left. The tree structure includes:

- Inspection
- Snapshot
- IntelliFind Tool
- OnePt Locator
- Rect Warp
- Blob Tool
- BlobFilter
- Fast Edge
- Fast Edge
- Pt to Line Distance
- Tolerance Meas

An "Edit Formatted String" dialog box is open, showing the following configuration:

- Format: `X = %f, Y = %f, Theta = %f, Num Dots = %d, Width = %f, P/F = %d\n\r`
- Argument 1: `WORLD(Insp1.Snapshot1.IntelliFind1.Inst1Pt.x)`
- Argument 2: `Insp1.Snapshot1.IntelliFind1.Inst1Pt.y`
- Argument 3: `Insp1.Snapshot1.IntelliFind1.Inst1Pt.angle`
- Argument 4: `Insp1.Snapshot1.O1PtLoc1.RectWarp1.Blob1.NumParts`

The dialog also includes a list of output types on the right:

- Error Code
- Output String
- Port Connection
- Inspection ID Prefix
- Number of Expressions
- Output Header
- Output1 Enable
- Output1 String
- Output Trailer

A callout box with a black border and white background is overlaid on the bottom right of the dialog, containing the text:

Set up a formatted string output to be sent through a TCP/IP connection

Visionscape FrontRunner - HawkEyeE1FFF6 (pc=dice.avp dev=OCVDemo.avp)

File View Help

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Editing Inspection: 0: Inspection

Step Tree Editor

Connect To

HE1600Socket

Enter details for the host that you want to call:

Host address: 192.168.254.100

Port number: 49211

Connect using: TCP/IP (Winsock)

OK Cancel

Inspection

- Snapshot
- IntelliFind Tool
- OnePt Locator
- Rect Warp
- Blob Tool
- BlobFilter
- Fast Edge
- Fast Edge
- Pt to Line Distance
- ✓ Tolerance Meas

AutoThreshold : Aut

- Fast Edge : EdgeFast1
- Fast Edge : EdgeFast2
- Pt to Line Distance : Pt2
- Tolerance Meas : C

View the data by opening a Hyper Terminal connection on the same PC

The screenshot displays the Visionscape FrontRunner interface for a HawkEyeE1FFF6 inspection job. The main window shows a 3D model of a component with inspection points. A secondary window, 'I/O Display', is open, showing physical and virtual I/O status. The physical I/O section has two indicator lights (one red, one green). The virtual I/O section includes a range selector (0001 - 0064), 'Clear All' and 'Set All' buttons, and a grid of 64 virtual I/O indicators. A 'Trigger Simulator' section is also visible, with a 'Virtual I/O Trigger' dropdown set to 'Virtual IO 1' and a 'Trigger Interval(ms)' of 500. A 'Start Triggers' button is present.

At the bottom, a table shows inspection statistics:

Inspect:	
Cycle	3642
PPM	16
Buffers	2 of 12 used (17)

Below the table, a HyperTerminal window displays inspection data:

```

HE1600Socket - HyperTerminal
File Edit View Call Transfer Help
X = 199.737808, Y = 397.999207, Theta = -0.694022, Num Dots = 4, Width = 115.276
215, P/F = 1
X = 199.705109, Y = 397.977570, Theta = -0.693928, Num Dots = 4, Width = 115.316
963, P/F = 1

```

Return to Run Mode to trigger the inspections through a Virtual Trigger and view reports, pass/fail outputs and communications

Visionscape FrontRunner - HawkEyeE1FFF6 (pc=dice.avp dev=DCYDemo.avp)









File View Help

1744_01 HawkEyeE1FFF6

HawkEyeE1FFF6

Calibration Dialog

Robust Calibration: Enter Cal Target Dot Locations

	X: -0.98400	Y: -0.66250		X: 0.00000	Y: -0.66250	
	X: -0.98400	Y: 0.00000		X: 0.00000	Y: 0.00000	
	X: 0.68920	Y: 0.00000				
	X: -0.98400	Y: 0.66260		X: 0.00000	Y: 0.66260	
	X: 0.68920	Y: 0.66260				

Calibration Target Height: 0.125

Camera Height: 13.5

Calibration Target is Viewed from Behind a Mirror

Enter the initial calibration parameters for the test target. When you view the test target under the camera and click Next.

Exit << Back **Next >>** Finished

Editor

Reports

Calibration

I/O

Network

Turn all measurements into real-world units by calibrating the smart camera

Visionscape FrontRunner - HawkEyeE1FFF6 (pc=dice.avp dev=DCYDemo.avp)

File View Help

1744_01 HawkEyeE1FFF6

HawkEyeE1FFF6

Calibration Dialog

Robust Calibration: Run Calibration Blob Tool

Calibration Blob Step

OLD IMAGE 255

Image Acquisition Params Blob Params

1) Acquire an Image of the Cal Target
2) Adjust Acq and Blob params if needed
3) Click "Run Calibration" to Calibrate

Acquire

Blob Info:

Exit << Back Next >> Finished

Editor
Reports
Calibration
I/O
Network

Calibration is as simple as taking the picture of a calibration target

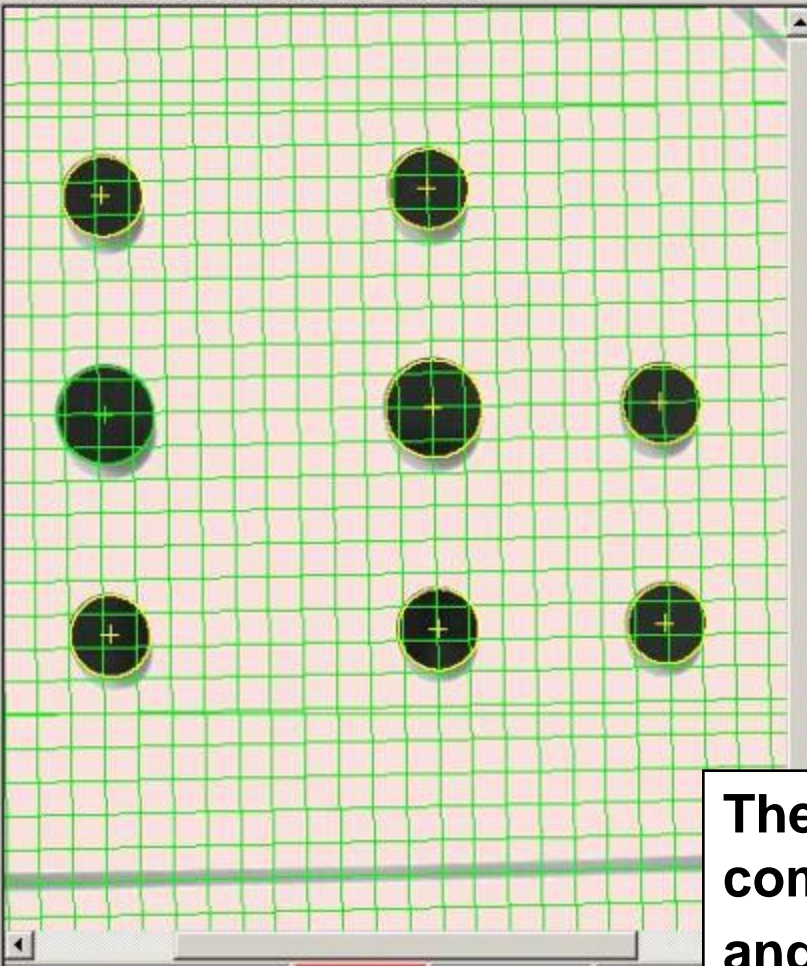
Visionscape FrontRunner - HawkEyeE1FFF6 (pc=dice.avp dev=DCYDemo.avp)

File View Help

1744_01 HawkEyeE1FFF6

Calibration Dialog

Robust Calibration: Run Calibration Blob Tool



Calibration Results

Average distance from measured dot locations to specified dot locations:
0.214949
A Value of 0,2 pixels is acceptable for most applications

Maximum distance from a measured dot location to it's specified location is:
0.336727
A Value of 0,5 pixels is acceptable for most applications.

One pixel is approximately equal to:
0.005636 Calibrated Units in X
0.005689 Calibrated Units in Y

Image Angle is:
1.091535 Degrees from Horizontal

Perspective distortion is:
-0.000010 in X
0.000022 in Y

Exit << Back Next >> Finished

OLD IMAGE 255 469,151

Editor
Reports
Calibration
I/O
Network

The camera calibration compensates for both scale and perspective

1744_U1 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Running

Snapshot1 (Insp1)

Return to Run Mode to view results in calibrated units

HawkEyeE1FFF6

V1 200 mm

Insp1. Inspect: 204 Pass: 204 Fail: 0

Cycle	92	Cyc Worst	93	Process	53	Draw	5
PPM	647	PPM Worst	645	Idle	32	DMA	0
Buffers	2 of 12 used (17%)		Overruns	None			


IntelliFind Tool.Instance1 Point		-380	-.424	-.359	1.000		
IntelliFind Tool.Instance1 Angle		-21.002					
IntelliFind Tool.Instance1 Scale		1.000					
IntelliFind Tool.Instance1 Fit Quality		.998					
Blob Tool.Number of parts		2					
Pt to Line Distance.Pt to Line Distance		.636					
Tolerance Meas.Status		True					

- Clear Inspection Counts
- Clear Statistics
- Display Results in Calibrated Units
- Show Step Timing Info...

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Running

Snapshot1 (Insp1)



HawkEyeE1FFF6

v1 200 mm

Insp1 Inspect: 635 Pass: 447 Fail: 188

Cycle	94	Cyc Worst	128	Process	55	Draw	5
PPM	632	PPM Worst	468	Idle	32	DMA	0
Buffers	3 of 12 used (25%)			Overruns	None		

IntelliFind Tool.Instance1 Point .918 .420 -.355 1.000

IntelliFind Tool.Instance1 Angle -20.810

IntelliFind Tool.Instance1 Scale 1.000

IntelliFind Tool.Instance1 Fit Quality .998

Blob Tool.Number of parts 5

Pt to Line Distance.Pt to Line Distance .634


Tolerance Meas.Status True

The "five" side appears

1744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Running

Snapshot1 (Insp1)



HawkEyeE1FFF6

V1 200 μm

Insp1 Inspect: 883 Pass: 648 Fail: 235

Cycle	100	Cyc Worst	128	Process	61	Draw	5
PPM	596	PPM Worst	468	Idle	32	DMA	0
Buffers	3 of 12 used (25%)			Overruns	None		

IntelliFind Tool.Instance1 Point -1.187 -.345 -.684 1.000

IntelliFind Tool.Instance1 Angle -39.841

IntelliFind Tool.Instance1 Scale 1.000

IntelliFind Tool.Instance1 Fit Quality .998

Blob Tool.Number of parts 3

Pt to Line Distance.Pt to Line Distance .629

Tolerance Meas.Status True

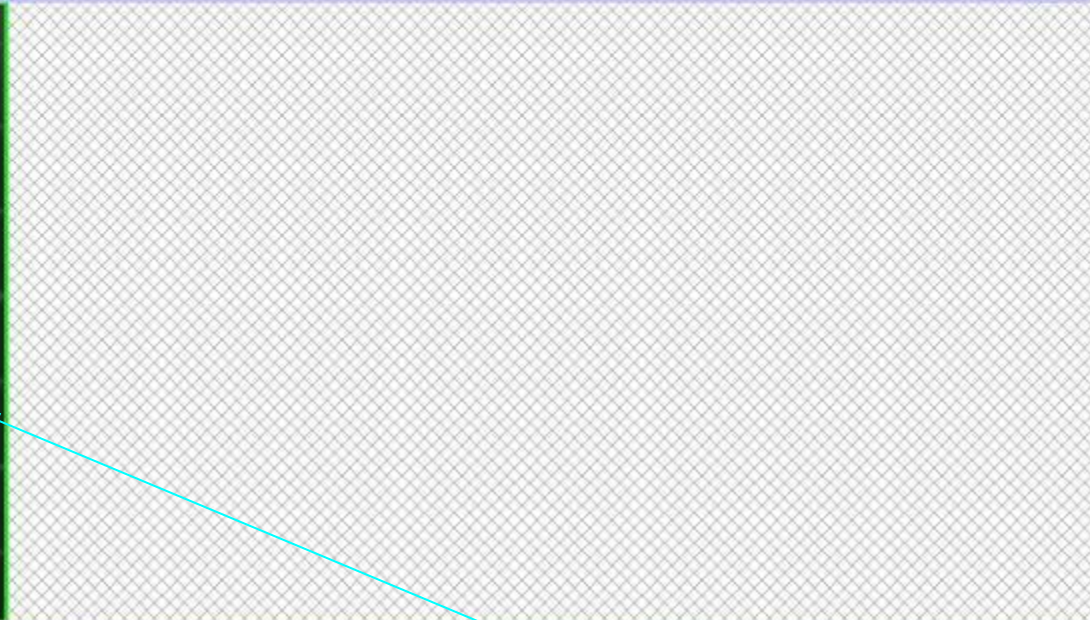
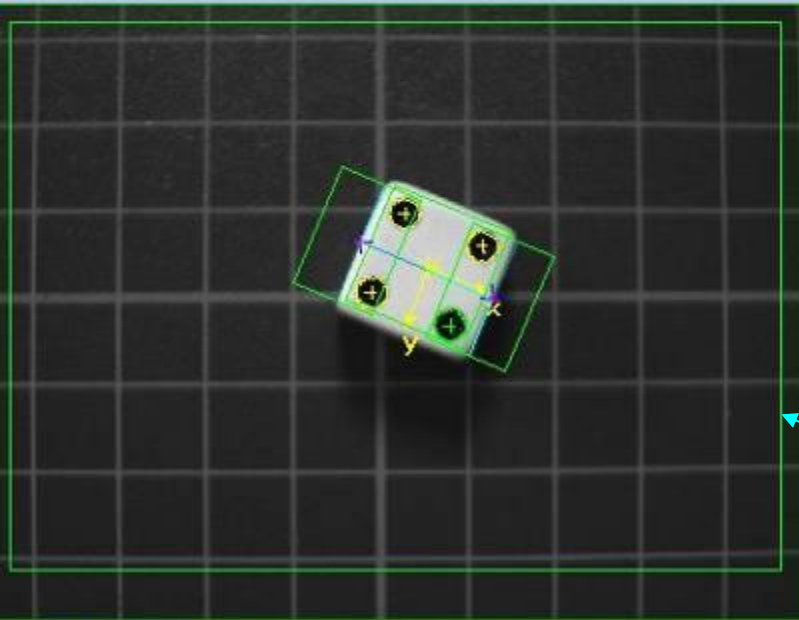
The “three” side appears

744_01 HawkEyeE1FFF6 Add Btn

HawkEyeE1FFF6: Running



Snapshot1 (Insp1)



HawkEyeE1FFF6



A background grid appears

Insp1 Inspect: 1317 Pass: 998 Fail: 319


Cycle	111	Cyc Worst	128	Process	71	Draw	5
PPM	539	PPM Worst	468	Idle	32	DMA	0
Buffers	3 of 12 used (25%)			Overruns	None		

IntelliFind Tool.Instance1 Point		-172	.007	.389	1.000				
IntelliFind Tool.Instance1 Angle		22.479							
IntelliFind Tool.Instance1 Scale		1.000							
IntelliFind Tool.Instance1 Fit Quality		.996							
Blob Tool.Number of parts		4							
Pt to Line Distance.Pt to Line Distance		.636							
Tolerance Meas.Status		True							

744_01 HawkEyeE1FFF6 Add Btn

▶ HawkEyeE1FFF6: Running

Snapshot1 (insp1)



HawkEyeE1FFF6

V1 200

Inspect: 205 Pass: 0 Fail: 205

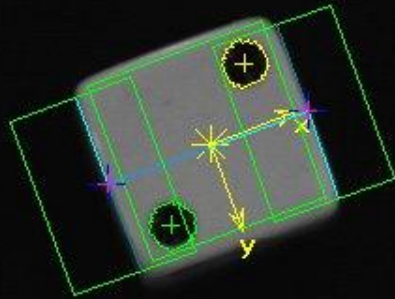
Cycle	213	Cyc Worst	224	Process	174
PPM	281	PPM Worst	267	Idle	32
Buffers	3 of 12 used (25%)		Overruns		
IntelliFind Tool.Instance1 Point		- .782	.120	.255	1.190
IntelliFind Tool.Instance1 Angle		14.718			
IntelliFind Tool.Instance1 Scale		1.190			
IntelliFind Tool.Instance1 Fit Quality		.997			
Blob Tool.Number of parts		4			
Pt to Line Distance.Pt to Line Distance		.764			
Tolerance Meas.Status		False			

An even more complex background with the die placed on printed box

Visionscape AppRunner: Monitoring the Device HawkEyeE1FFF6 :



Snapshot1 (Insp1)



This job may be deployed using AppRunner – if no editing or changes are needed

HawkEyeE1FFF6

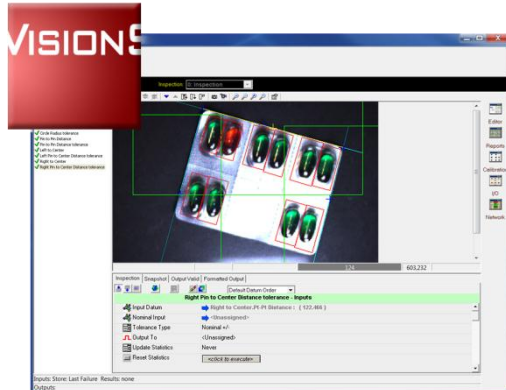
Insp1 Inspect: 608 Pass: 608 Fail: 0

IntelliFind Tool.Instance1 Point	-380	-425	-359	1.000				
IntelliFind Tool.Instance1 Angle	-21.014							
IntelliFind Tool.Instance1 Scale	1.000							
IntelliFind Tool.Instance1 Fit Quality	.998							



Visionscape Summary

- Visionscape software provides all the elements needed for developing and deploying complete machine vision applications (not just prototyping vision processing steps)
- Features a configuration environment that can be tailored to different users for maximum productivity
- Powerful and easy to use point-and-click environment
- Extensive collection of proven image processing tools:



- FrontRunner Interface: “Engineering” GUI
- AppRunner Interface: “Monitoring” GUI
- Intellifind: Geometric pattern match tool
- Complete set of ActiveX components

Thank You.

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Precision Data Acquisition
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