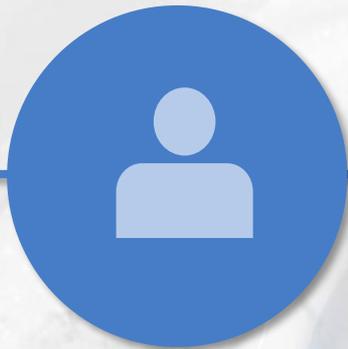




# A/B Test Automation

John Pourdanis – Software Engineer in Test



# About me

## Software Engineer in Test

- Last ~3 years working at Pheron LTD *schoolX*
- 7 years in Software Development Industry
- Thessalonki Software Testing & QA Meetup Organizer
  - Software Quality Enthusiast
  - Public Speaker Wannabe
- Find me at LinkedIn and Twitter @jpourdanis



# Applitoools Eyes ✦ applitoools eyes

1

A smart tool for compare images

2

Different matching levels with AI Algorithms

3

Easy to integrate with existing code

4

A/B Testing Feature

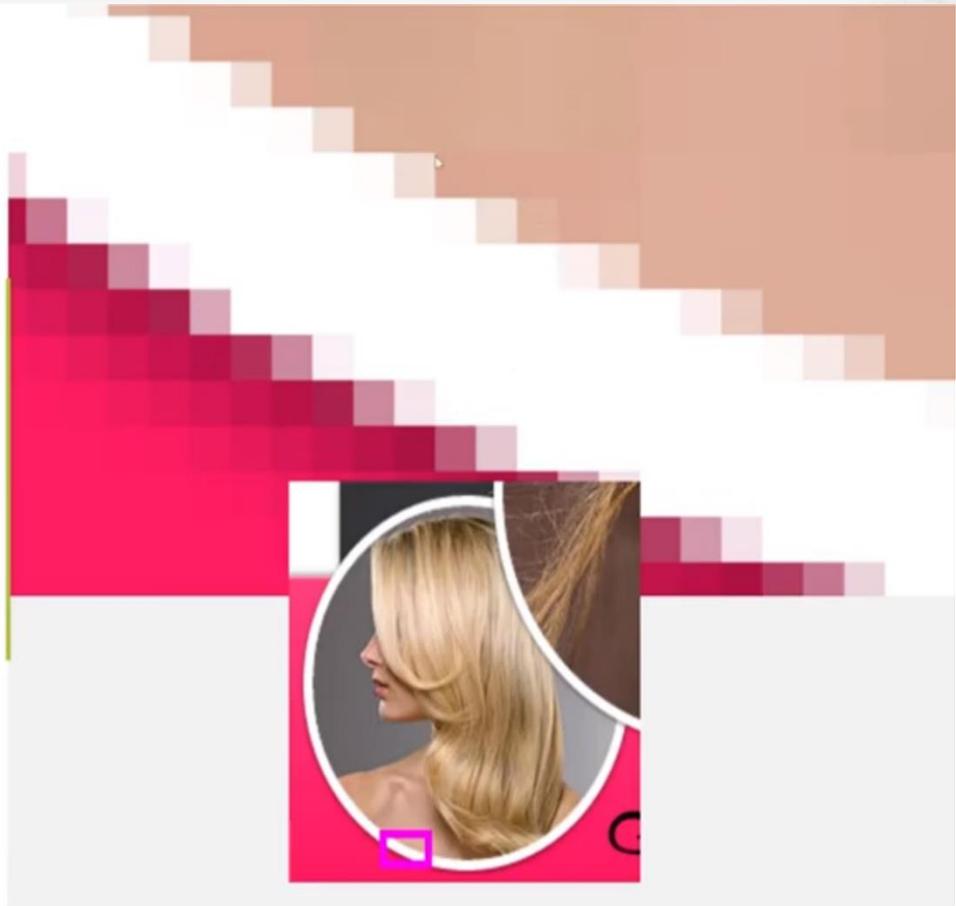
# The problem that the eye can't detect



Pixel to Pixel Matching problems

FALSE POSITIVE  
Example #1

Anti Aliasing 1/2



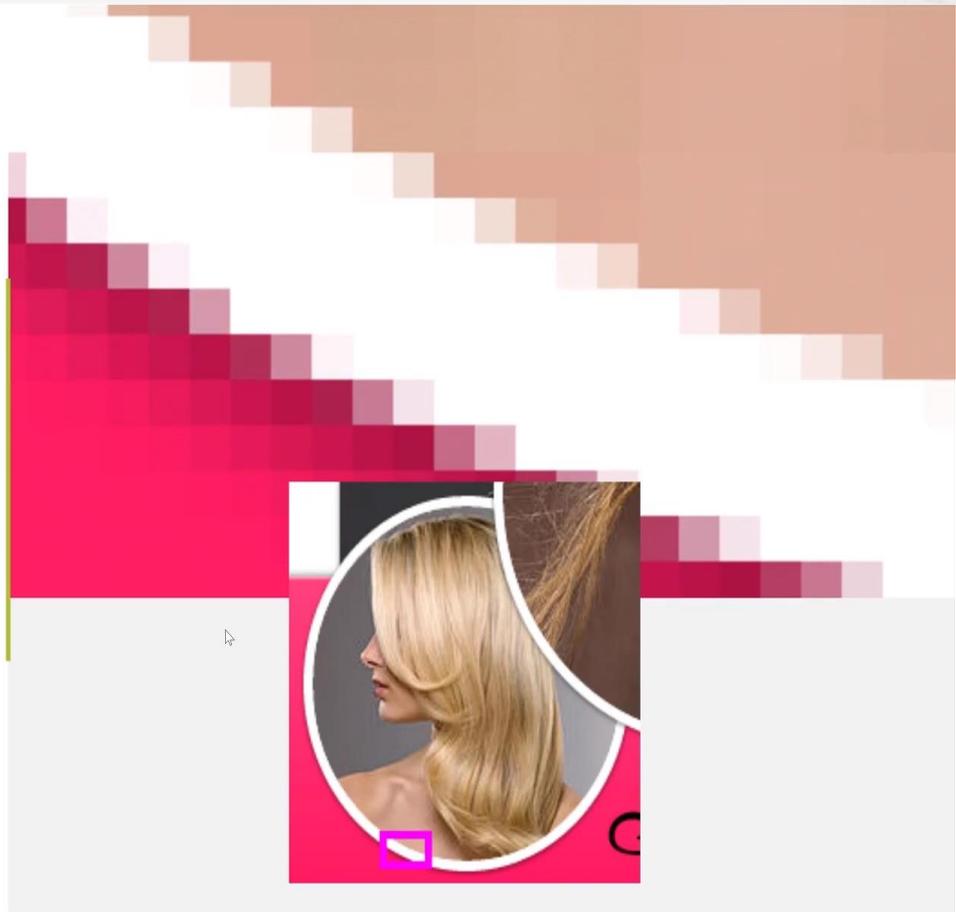
# The problem that the eye can't detect



Pixel to Pixel Matching problems

FALSE POSITIVE  
Example #1

Anti Aliasing 2/2



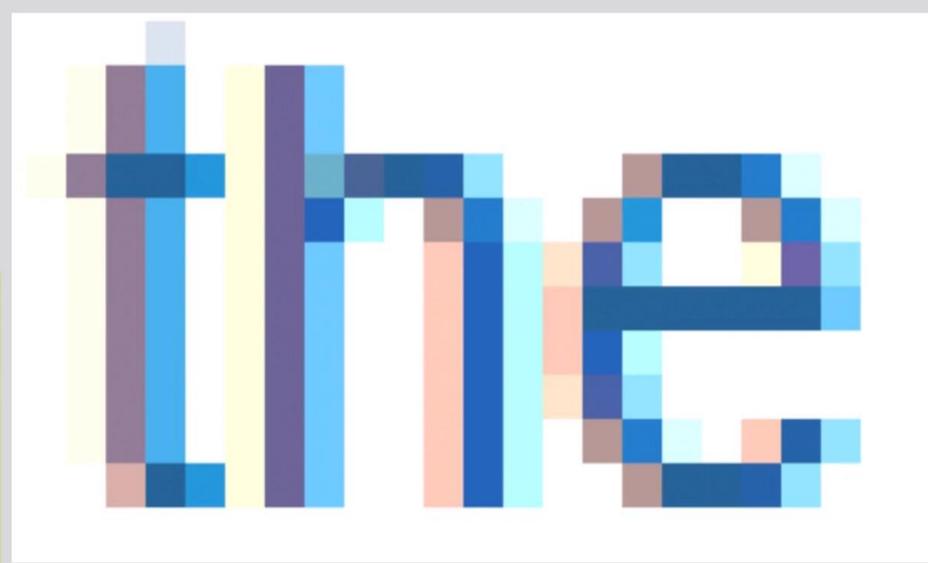
# The problem that the eye can't detect

Pixel to Pixel Matching problems



FALSE POSITIVE  
Example #2

Brightness 1/2



To login please enter the following information:

# The problem that the eye can't detect



Pixel to Pixel Matching problems

FALSE POSITIVE  
Example #2

Brightness 2/2



To login please enter **the** following information:

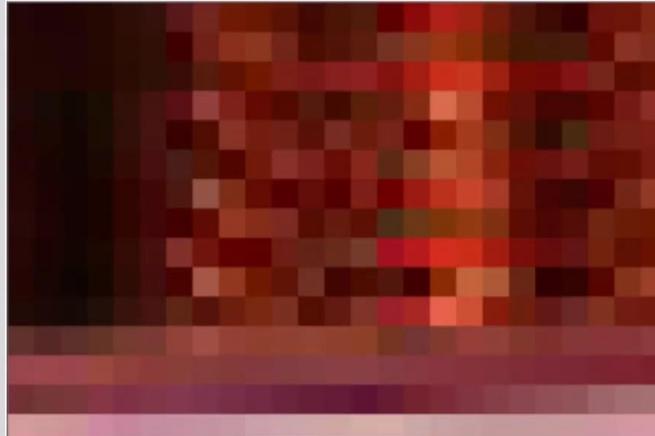
# The problem that the eye can't detect

Pixel to Pixel Matching problems



FALSE POSITIVE  
Example #3

Image Scaling  $1/2$



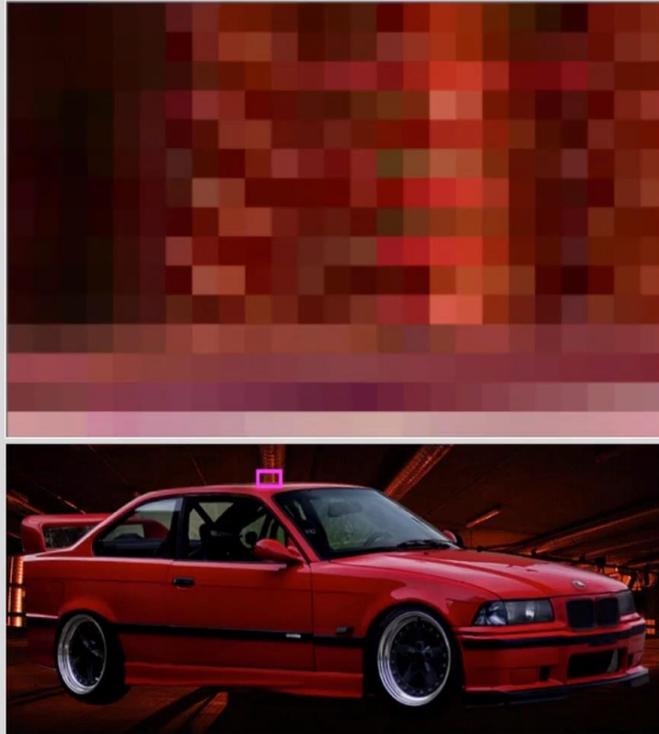
# The problem that the eye can't detect

Pixel to Pixel Matching problems



FALSE POSITIVE  
Example #3

Image Scaling 1/2



# Match Levels



1

## Exact

pixel-to-pixel comparison, not recommended. Exact performs a pixel-to-pixel comparison with predefined threshold.

2

## Strict

Strict knows to ignore rendering changes that are not visible to the human.

3

## Content

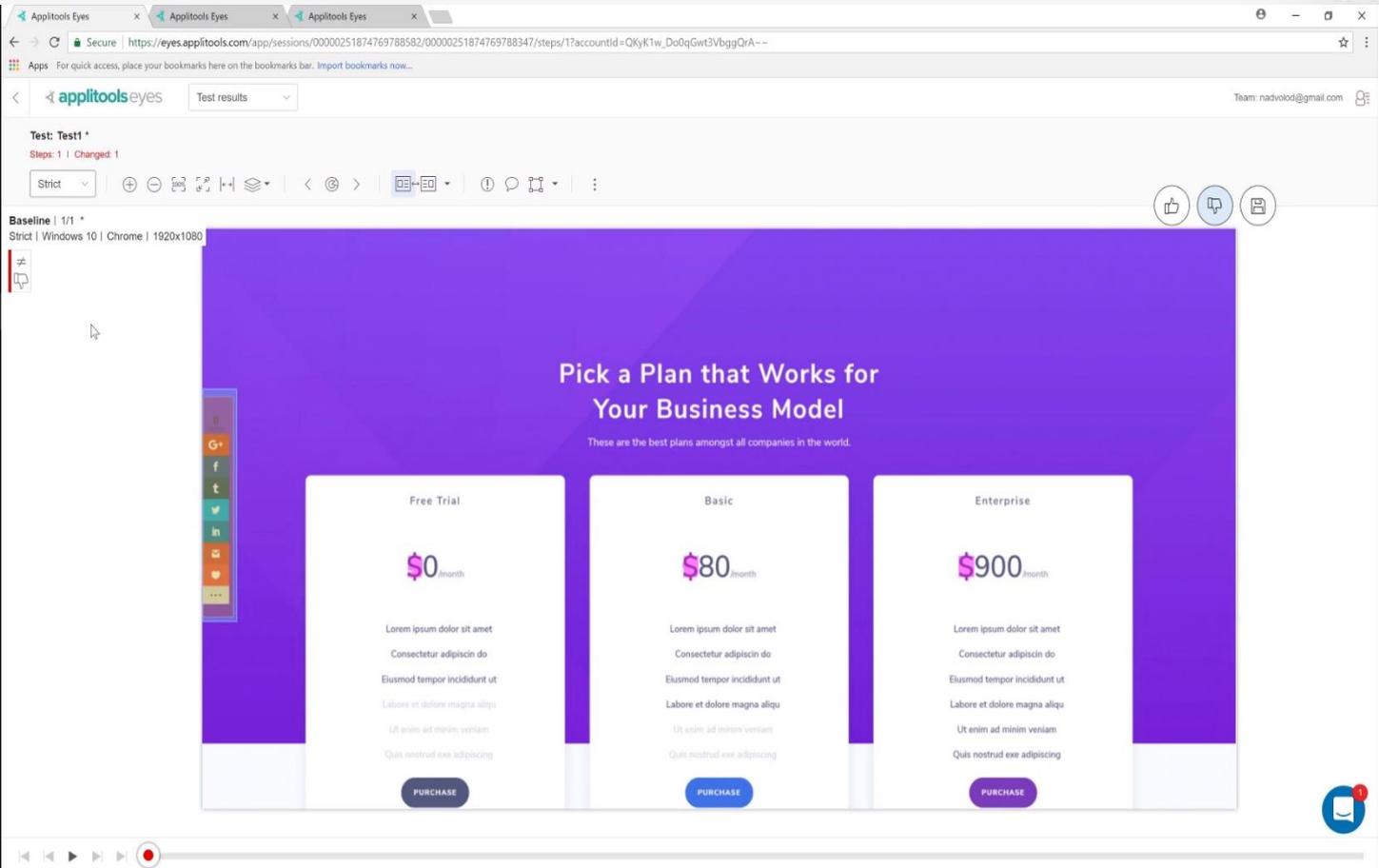
Content works in a similar way to Strict except for the fact that it ignores colors.

4

## Layout

It validates the alignment and relative position of all elements on the page, such as: buttons, menus, text areas, paragraphs, images, It ignores the content, colour and other style changes between the pages.

# Match Level : Strict



Applitools Eyes x Applitools Eyes x Applitools Eyes x

Secure | [https://eyes.applitools.com/app/sessions/00000251874769788582/00000251874769788347/steps/1?accountId=QKyK1w\\_Do0qGwt3Vb9gQrA--](https://eyes.applitools.com/app/sessions/00000251874769788582/00000251874769788347/steps/1?accountId=QKyK1w_Do0qGwt3Vb9gQrA--)

Apps For quick access, place your bookmarks here on the bookmarks bar. Import bookmarks now...

applitools eyes Test results

Team: nadvolodi@gmail.com

Test: Test1 \*  
Steps: 1 | Changed: 1

Strict

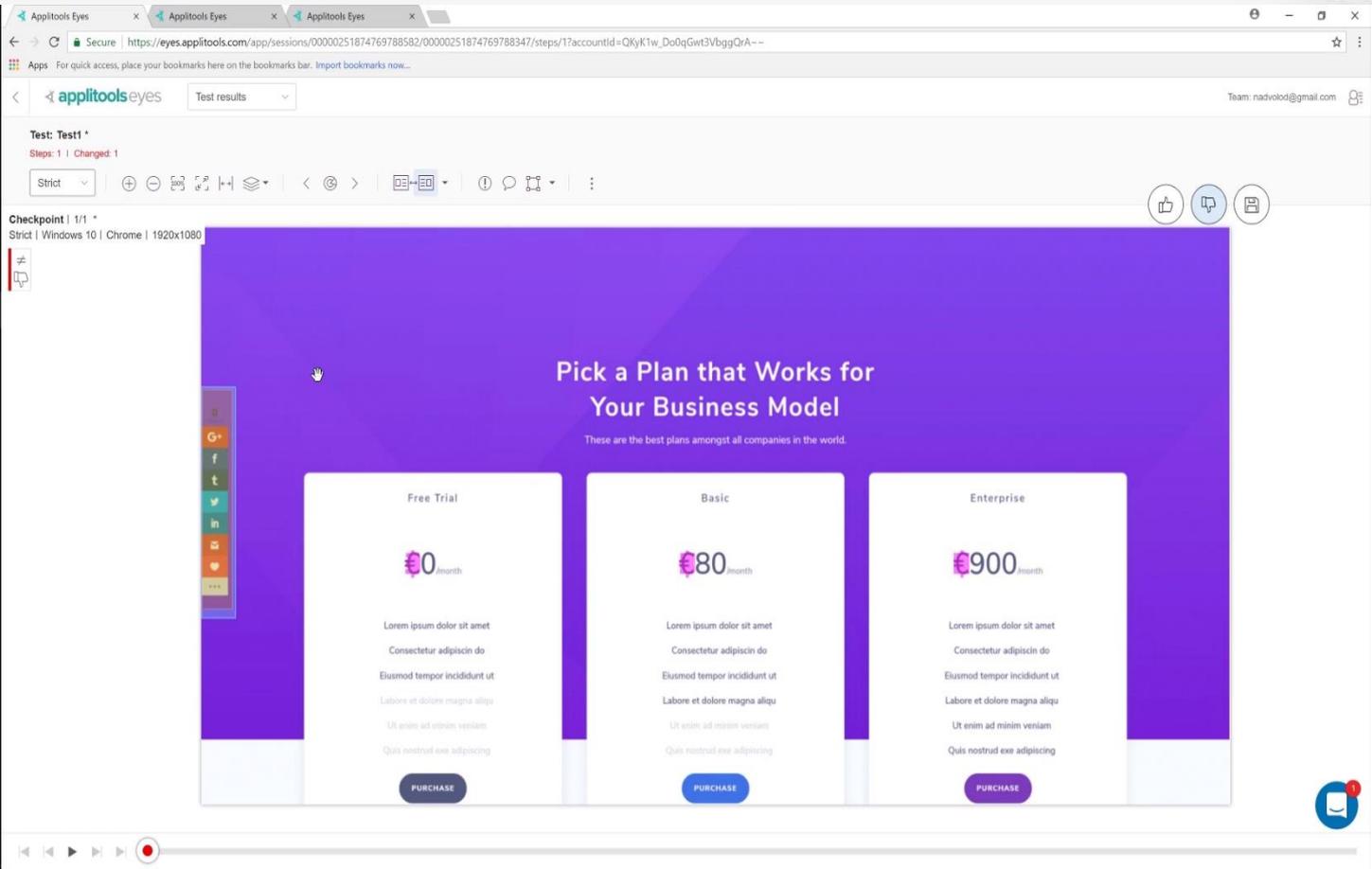
Baseline | 1/1 \*  
Strict | Windows 10 | Chrome | 1920x1080

## Pick a Plan that Works for Your Business Model

These are the best plans amongst all companies in the world.

Free Trial	Basic	Enterprise
\$0 <sub>month</sub>	\$80 <sub>month</sub>	\$900 <sub>month</sub>
Lorem ipsum dolor sit amet Consectetur adipiscing do Eiusmod tempor incididunt ut Labore et dolore magna aliqu Ut enim ad minim veniam Quis nostrud ex adipiscing	Lorem ipsum dolor sit amet Consectetur adipiscing do Eiusmod tempor incididunt ut Labore et dolore magna aliqu Ut enim ad minim veniam Quis nostrud ex adipiscing	Lorem ipsum dolor sit amet Consectetur adipiscing do Eiusmod tempor incididunt ut Labore et dolore magna aliqu Ut enim ad minim veniam Quis nostrud ex adipiscing
PURCHASE	PURCHASE	PURCHASE

# Match Level : Strict



The screenshot displays the Applitools Eyes web interface. At the top, there are three browser tabs labeled 'Applitools Eyes'. The address bar shows a URL: [https://eyes.applitools.com/app/sessions/00000251874769788582/00000251874769788347/steps/1?accountId=QKyK1w\\_Do0qGwt3Vb9gQrA--](https://eyes.applitools.com/app/sessions/00000251874769788582/00000251874769788347/steps/1?accountId=QKyK1w_Do0qGwt3Vb9gQrA--). The page title is 'applitools eyes' and the test results are shown as 'Test results'. A 'Team: nadvolodi@gmail.com' is listed in the top right.

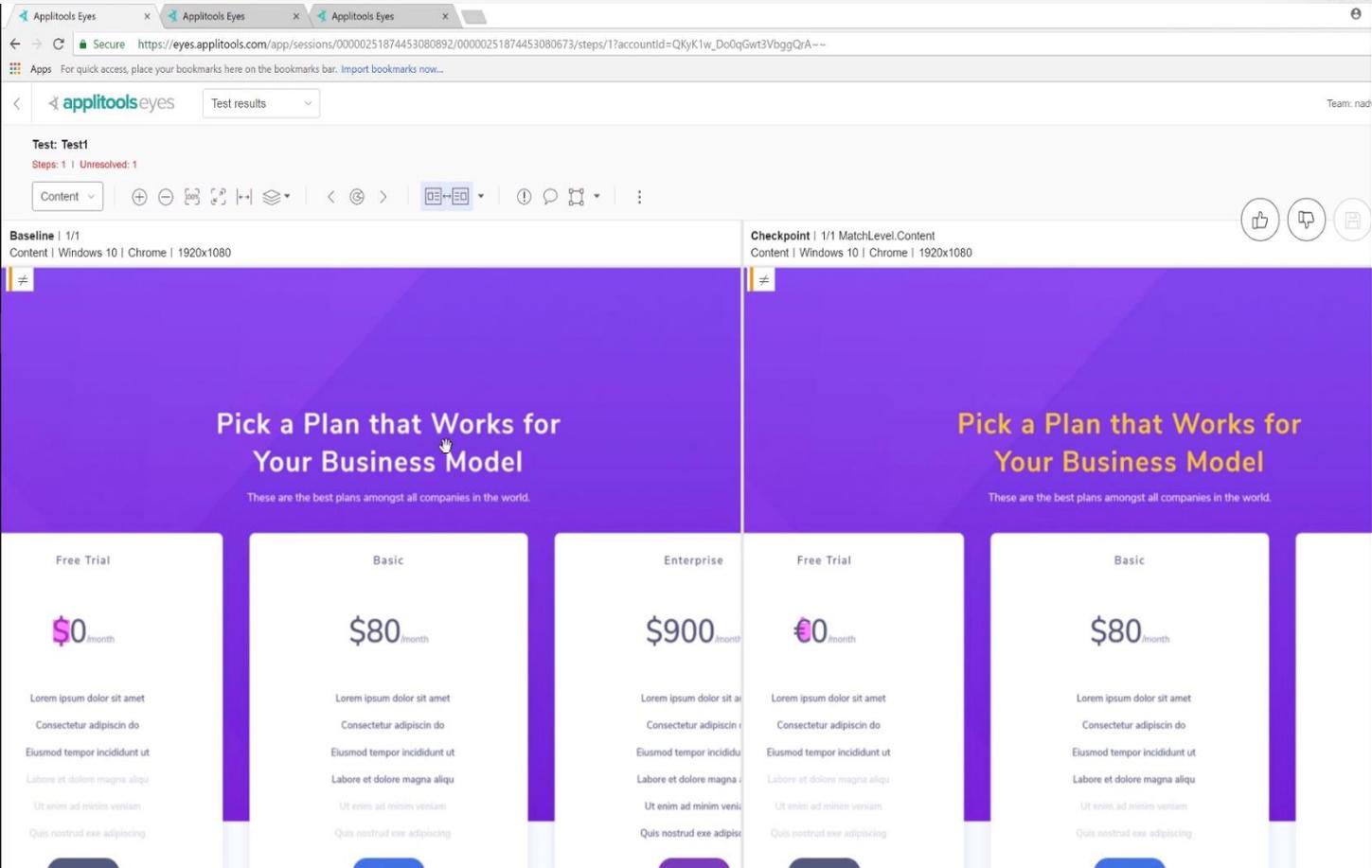
The main content area shows a test titled 'Test: Test1' with 'Steps: 1 | Changed: 1'. A toolbar includes a 'Strict' dropdown menu, zoom in/out buttons, a screenshot button, and other navigation icons. A 'Checkpoint | 1/1' indicator is visible on the left side of the browser window.

The browser window displays a pricing page with a purple background. The main heading is 'Pick a Plan that Works for Your Business Model'. Below this, it states 'These are the best plans amongst all companies in the world.' There are three pricing cards:

- Free Trial**: €0/month. Description: Lorem ipsum dolor sit amet. Consectetur adipiscing do. Eiusmod tempor incididunt ut. Labore et dolore magna aliqu. Ut enim ad minim veniam. Quis nostrud ex adipiscing. **PURCHASE** button.
- Basic**: €80/month. Description: Lorem ipsum dolor sit amet. Consectetur adipiscing do. Eiusmod tempor incididunt ut. Labore et dolore magna aliqu. Ut enim ad minim veniam. Quis nostrud ex adipiscing. **PURCHASE** button.
- Enterprise**: €900/month. Description: Lorem ipsum dolor sit amet. Consectetur adipiscing do. Eiusmod tempor incididunt ut. Labore et dolore magna aliqu. Ut enim ad minim veniam. Quis nostrud ex adipiscing. **PURCHASE** button.

At the bottom of the browser window, there is a navigation bar with back, forward, and refresh buttons, and a red circle icon. A chat bubble icon with a '1' notification is in the bottom right corner of the browser window.

# Match Level : Content



**Test: Test1**  
Steps: 1 | Unresolved: 1

Content

Baseline | 1/1  
Content | Windows 10 | Chrome | 1920x1080

Checkpoint | 1/1 MatchLevel.Content  
Content | Windows 10 | Chrome | 1920x1080

## Pick a Plan that Works for Your Business Model

These are the best plans amongst all companies in the world.

Free Trial	Basic	Enterprise	Free Trial	Basic
\$0 /month	\$80 /month	\$900 /month	€0 /month	\$80 /month
Lorem ipsum dolor sit amet Consectetur adipiscing do Eiusmod tempor incididunt ut Labore et dolore magna aliqua Ut enim ad minim veniam Quis nostrud exee adipiscing	Lorem ipsum dolor sit amet Consectetur adipiscing do Eiusmod tempor incididunt ut Labore et dolore magna aliqua Ut enim ad minim veniam Quis nostrud exee adipiscing	Lorem ipsum dolor sit amet Consectetur adipiscing do Eiusmod tempor incididunt ut Labore et dolore magna aliqua Ut enim ad minim veniam Quis nostrud exee adipiscing	Lorem ipsum dolor sit amet Consectetur adipiscing do Eiusmod tempor incididunt ut Labore et dolore magna aliqua Ut enim ad minim veniam Quis nostrud exee adipiscing	Lorem ipsum dolor sit amet Consectetur adipiscing do Eiusmod tempor incididunt ut Labore et dolore magna aliqua Ut enim ad minim veniam Quis nostrud exee adipiscing

# Match Level : Layout



FIND WHAT YOUR BUSINESS NEEDS FOR **HEALTH CARE REFORM** ▶

**PAYCHEX** [Security Alert!](#) | [Corporate](#) | [Login](#) | [Careers](#) | [Contact](#)

[Payroll & Taxes](#) | [Human Resources](#) | [Employee Benefits](#) | [Accounting & Finance](#) | [Resources](#) | [Partnerships](#) | [CALL](#)

## Payroll Processing Made Easy

Outsource payroll and taxes, and focus on running your business instead. Paychex is the payroll company of choice for over 500,000 businesses.

**Get FREE Pricing**

[Next →](#)

Step 1 of 2

Introducing Paychex Accounting Online™: Simple Accounting for Businesses and Accountants. [CLICK →](#)

Your Business is About Customers, Not Payroll Management

# Match Level : Layout



Cross-Browser]

FIND WHAT YOUR BUSINESS NEEDS FOR **HEALTH CARE REFORM** ▶

**PAYCHEX** [Security Alert!](#) | [Corporate](#) | [Login](#) | [Careers](#) | [Contact](#)

[Payroll & Taxes](#) | [Human Resources](#) | [Employee Benefits](#) | [Accounting & Finance](#) | [Resources](#) | [Partnerships](#) [CALL](#)

## Payroll Processing Made Easy

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**Get FREE Pricing**

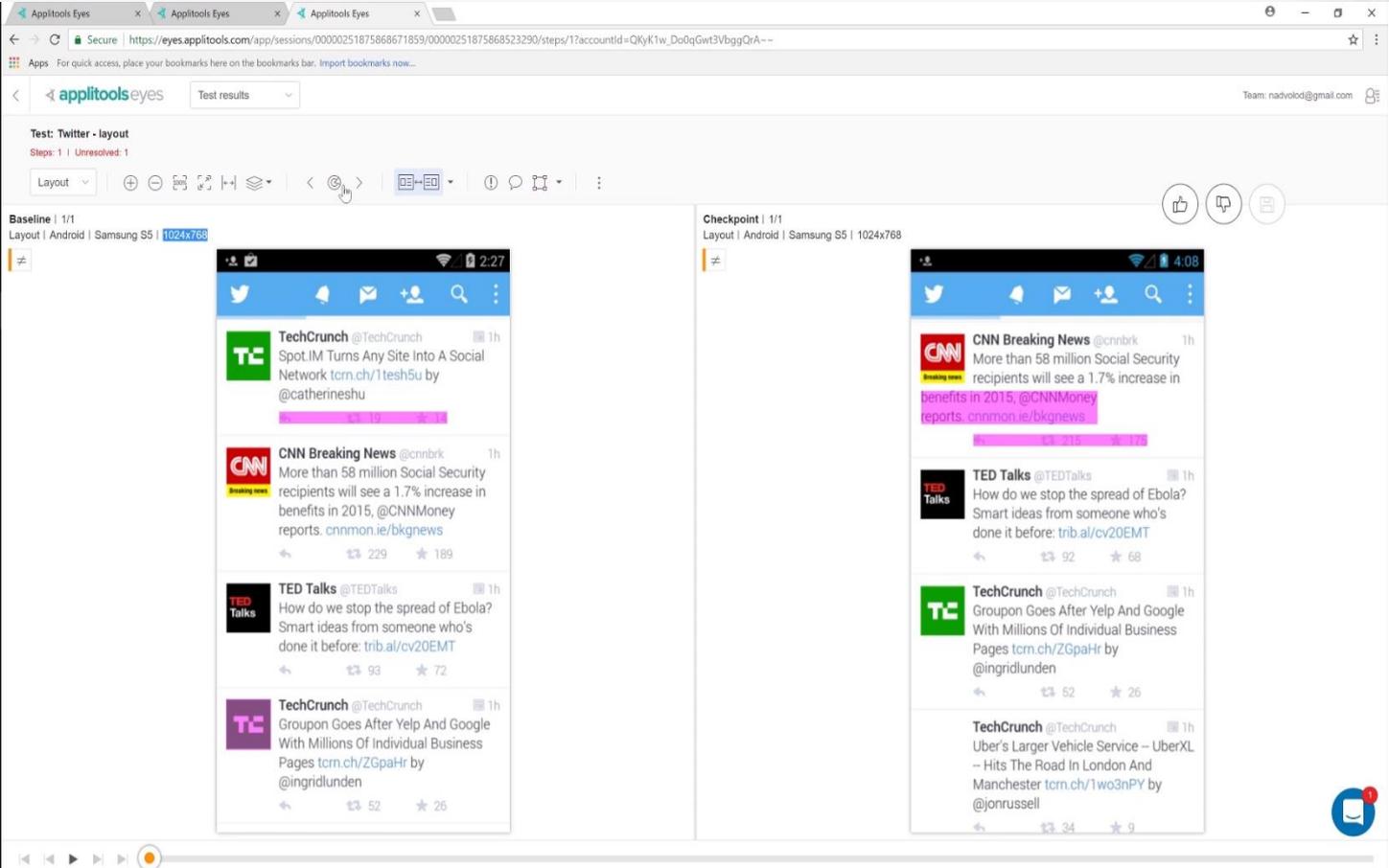
[Next →](#)

Step 1 of 2

Introducing Paychex Accounting Online™: Simple Accounting for Businesses and Accountants. [CLICK →](#)

Your Business is About Customers, Not Payroll Management [PAYCHEX 1185](#)

# Match Level : Layout



The screenshot displays the Applitools Eyes web interface. At the top, there are three browser tabs labeled 'Applitools Eyes'. The address bar shows a URL: [https://eyes.applitools.com/app/sessions/00000251875868671859/00000251875868523290/steps/1?accountId=QkYK1w\\_Do0qGwt3Vb9gCrA--](https://eyes.applitools.com/app/sessions/00000251875868671859/00000251875868523290/steps/1?accountId=QkYK1w_Do0qGwt3Vb9gCrA--). The page title is 'applitools eyes' and the user is 'Team: nadvolodi@gmail.com'. The test name is 'Test: Twitter - layout' with 'Steps: 1 | Unresolved: 1'. A toolbar contains various navigation and comparison icons. The main content area is split into two panels: 'Baseline | 1/1' and 'Checkpoint | 1/1'. Both panels show a mobile Twitter feed on a Samsung S5. The baseline feed contains four tweets, while the checkpoint feed contains five tweets, with the top two being different from the baseline. A bottom navigation bar includes a play button and a circular icon with a red notification badge.

**Test: Twitter - layout**  
Steps: 1 | Unresolved: 1

Layout

**Baseline | 1/1**  
Layout | Android | Samsung S5 | 1024x768

**Checkpoint | 1/1**  
Layout | Android | Samsung S5 | 1024x768

**Tweet 1 (Baseline):** TechCrunch @TechCrunch 1h  
Spot.IM Turns Any Site Into A Social Network tcrn.ch/1tesh5u by @catherineshu

**Tweet 2 (Baseline):** CNN Breaking News @cnbrk 1h  
More than 58 million Social Security recipients will see a 1.7% increase in benefits in 2015. @CNNMoney reports. cnnmon.ie/bkgnews

**Tweet 3 (Baseline):** TED Talks @TEDTalks 1h  
How do we stop the spread of Ebola? Smart ideas from someone who's done it before: trib.al/cv20EMT

**Tweet 4 (Baseline):** TechCrunch @TechCrunch 1h  
Groupon Goes After Yelp And Google With Millions Of Individual Business Pages tcrn.ch/ZGpaHr by @ingridlunden

**Tweet 1 (Checkpoint):** CNN Breaking News @cnbrk 1h  
More than 58 million Social Security recipients will see a 1.7% increase in benefits in 2015. @CNNMoney reports. cnnmon.ie/bkgnews

**Tweet 2 (Checkpoint):** TED Talks @TEDTalks 1h  
How do we stop the spread of Ebola? Smart ideas from someone who's done it before: trib.al/cv20EMT

**Tweet 3 (Checkpoint):** TechCrunch @TechCrunch 1h  
Groupon Goes After Yelp And Google With Millions Of Individual Business Pages tcrn.ch/ZGpaHr by @ingridlunden

**Tweet 4 (Checkpoint):** TechCrunch @TechCrunch 1h  
Uber's Larger Vehicle Service -- UberXL -- Hits The Road In London And Manchester tcrn.ch/1w03nPvY by @jonrussell



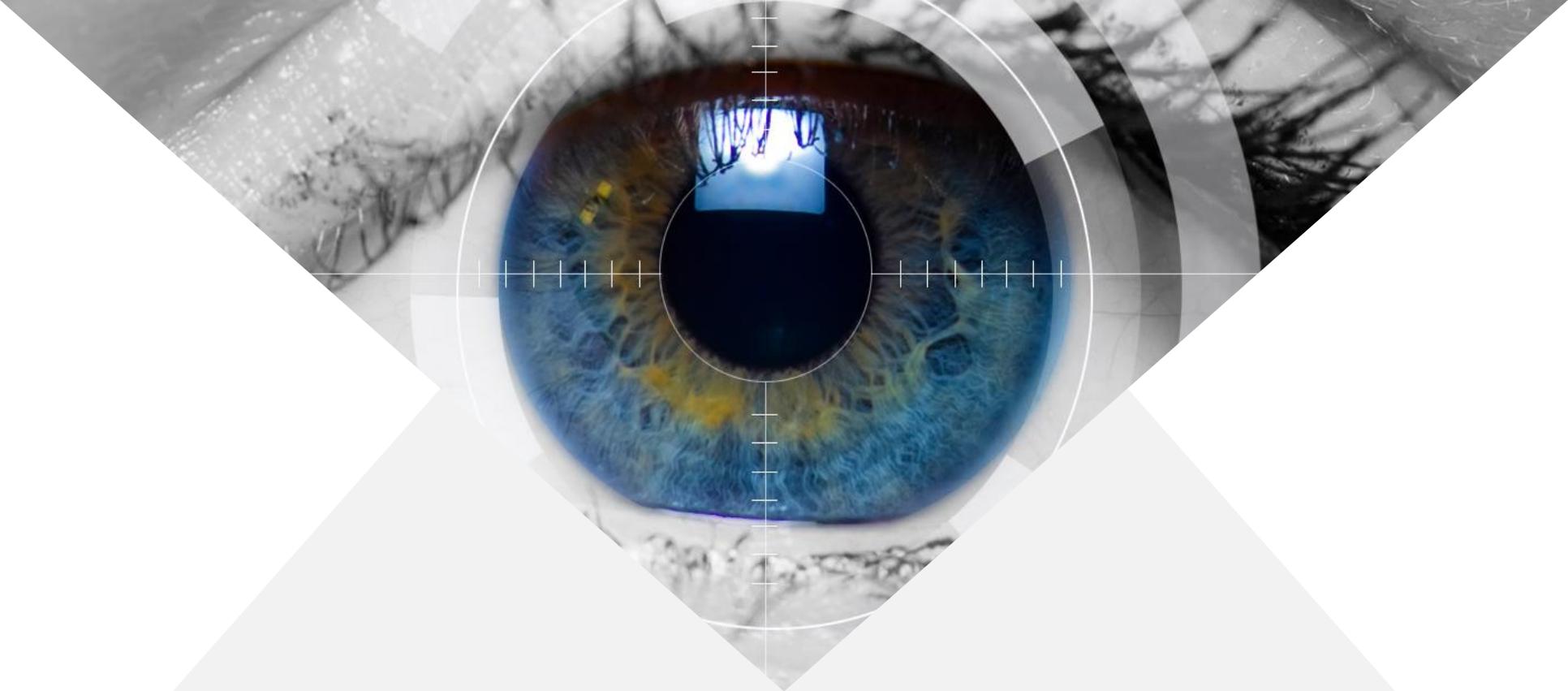
# Demo Time

A/B Testing With Applitools



**applitools**

Automated Visual Testing



Thank you

Questions?