

Funções Principais  
**Aplicativo  
desktop**

V3.1.4

15/01/2025

# Criar Nova Análise

## Quality Control

[Home](#)[Artificial Intelligence](#)[Dashboard](#)[Image Mosaic](#)[Lot Info](#)[Classification Report](#)[Export Data](#)[Export Images](#)[Compare](#)

## Cloud | Local Server

[Upload Analysis](#)

## AI Model | Dataset

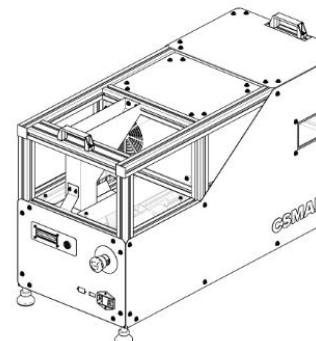
[Manage Dataset](#)[Edit Model](#)[Evaluate Model](#)

## System Configuration

[Acquisition Settings](#)[General Settings](#)[About](#)

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# CSMART DIGIT



Welcome to Csmart Digit  
The AI-Enabled Coffee Seed Classifier

[Create New Analysis](#)

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[Open Existing Analysis](#)[Open User Manual](#)Criar Nova  
Análise

1. Clicar no botão **Home**  
na barra lateral

2. Clicar em **Create New Analysis**

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Quality Control  
New Analysis

1. Select the folder to create your analysis

Select Folder

3

D:\Csmat\_Digit\Analysis

4

2. Type the name of the file

File name

5

Record New Analysis

&lt; Back

Criar Nova  
Análise

3. Clicar em **Select Folder** caso queira modificar a o local onde será salvo a análise.

4. O endereço onde fica salvo o arquivo aparece logo abaixo do botão.

5. Digite o nome da análise no campo indicado. O nome do arquivo pode ser qualquer palavra ou número que seja possível identificar a amostra a ser analisada.

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File Name: teste | File Location: D:\Csmat\_Digit\Analysis | Last Analysis Model: No previous analysis

Quality Control  
**New Analysis**

Detected Kernels: 0 | Seed Area: 0 mm<sup>2</sup>

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**Record**

6. **Start**  
11. **Stop**

**Device Control**

7. **Light**  
8. **Belt**  
9. **Feeder**

10. **Feeder Speed** (Slider from 0 to 100)

## Criar Nova Análise

6. Aperte **Start** para iniciar a gravação

7. Na sequência aperte **Light** para ligar a luz

8. Verifique se a amostra já está na moega e aperte **Belt** para iniciar a esteira

9. Aperte **Feeder** para iniciar a vibração da calha e a amostra começar a se movimentar.

10. O **Feeder Speed** serve para aumentar ou diminuir a velocidade da quantidade de café

11. Aperte **Stop** para parar o processo e encerrar a gravação

**Csmart Digit v.3.1.4**

File Name: No file opened | File Location: D:\Csmat\_Digit\Analysis | Last Analisys Model: No previous analysis

Quality Control | Artificial Intelligence (selected) | Home | Dashboard | Image Mosaic | Lot Info | Classification Report | Export Data | Export Images | Compare | Cloud | Local Server | Upload Analysis | AI Model | Dataset | Manage Dataset | Edit Model | Evaluate Model | System Configuration | Acquisition Settings | General Settings | About

**Quality Control**  
**Artificial Intelligence**

1. Select the AI model to classify the analysis file

**12** **Select Model**

Selected Model: 224\_MCL\_CNVNXT\_L\_ARA\_BRA\_MIXEDV4\_E97

Classification Methods: COB, NY  
 Classes: Black, Broken, Floater, Fox Bean, Husk, Immature, Insect Dam, Ok, Parchment, Pod, Rocks, Shell, Sour  
 Species: Arabica  
 Variety: Mixed  
 Origin: Brazil  
 Region: Sul de Minas/MG  
 Processing Method: Mixed  
 Accuracy: 97.0%  
 Database Name: MCL\_MixedProcessing\_v04  
 Model Issued: October/2024  
 Model Version: 39

2. Adjust the 'Pixel/cm' in the analysis file [Edit this model](#)

260 [Save](#)

3. Select the AI model to remove duplicate seeds

Do Not Remove Duplicates

4. Click 'Run Analysis' to start classification

**13** **Run Analysis**

## Criar Nova Análise

12. Após finalizado a gravação é a hora de fazer a análise. Clique em **Select Model** e escolha o modelo de Inteligência Artificial

13. Clique em **Run Analysis** para rodar a análise, e finalizar o processo.

**Csmart Digit v.3.1.4**

File Name: No file opened | File Location: D:\Csmat\_Digit\Analysis | Last Analisys Model: No previous analysis

Quality Control | Artificial Intelligence (selected) | Home | Dashboard | Image Mosaic | Lot Info | Classification Report | Export Data | Export Images | Compare | Cloud | Local Server | Upload Analysis | AI Model | Dataset | Manage Dataset | Edit Model | Evaluate Model | System Configuration | Acquisition Settings | General Settings | About

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# Abrir Arquivo Existente

## Quality Control

 Home Artificial Intelligence Dashboard Image Mosaic Lot Info Classification Report Export Data Export Images Compare

## Cloud | Local Server

 Upload Analysis

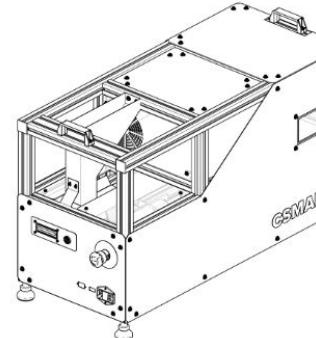
## AI Model | Dataset

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CSMART  
DIGITWelcome to Csmart Digit  
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# Abrir Arquivo Existente

1. Clicar no botão **Home** na barra lateral

2. Clicar em **Open Existing Analysis** e selecione o arquivo de análise a ser aberto

# Painel de Resultados



File Name: Peneira18 | File Location: D:\Csmat\_Digit\Analysis | Last Analysis Model: 224\_MCL\_EFB0\_ARA\_BRA\_MIXEDV5\_W96

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Quality Control Dashboard

Total Defects: **24.97%** (Area: 11355)

Primary Defects: **1.35%** (Area: 613)

Secondary Defects: **23.63%** (Area: 10742)

Foreign Matter: **0%** (Area: 0)

Inspected Seeds: **870** (Est. Weight: 132g)

COB Protocol: **Tipo 6/7** (Eq. Defects: 116)

Dominant Color: **RGB(147, 149, 121)**

**Screen Size Distribution** (2)

Screen Size	Area	Percentage	Cumulative %
Screen 10	0	0.00%	100.00%
Screen 11	0	0.00%	100.00%
Screen 12	0	0.00%	100.00%
Screen 13	106	0.23%	100.00%
Screen 14	0	0.00%	99.77%
Screen 15	86	0.19%	99.77%
Screen 16	285	0.63%	99.58%
Screen 17	6164	13.56%	98.95%
Screen 18	29937	65.84%	85.39%
Screen 19	8990	19.55%	19.55%

**3**

Min and Max Screen: 10 to 19

Good  Defects  Both

[Save Image](#) [Generate Plot](#)

**Classes Distribution**

Class	Area	Percentage	Subset
Black	0	0.00%	Primary Defects
Broken	125	0.27%	Secondary Defects
Floater	0	0.00%	Secondary Defects

# Dashboard

2. O quadro **Screen Size Distribution** contém o percentual de peneiras

3. Pode-se ver a distribuição das peneiras somente em cafés bons, clicando-se em **Good**, somente em defeitos clicando-se em **Defects**, ou em ambos, clicando-se em **Both**.

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## Cloud | Local Server

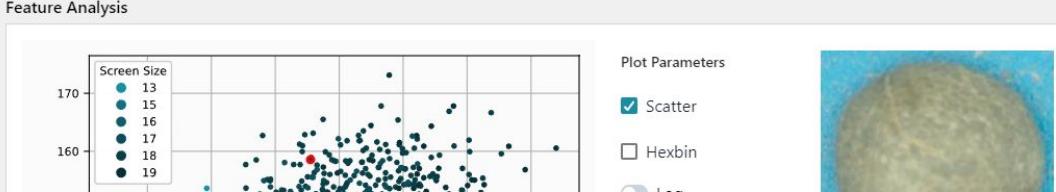
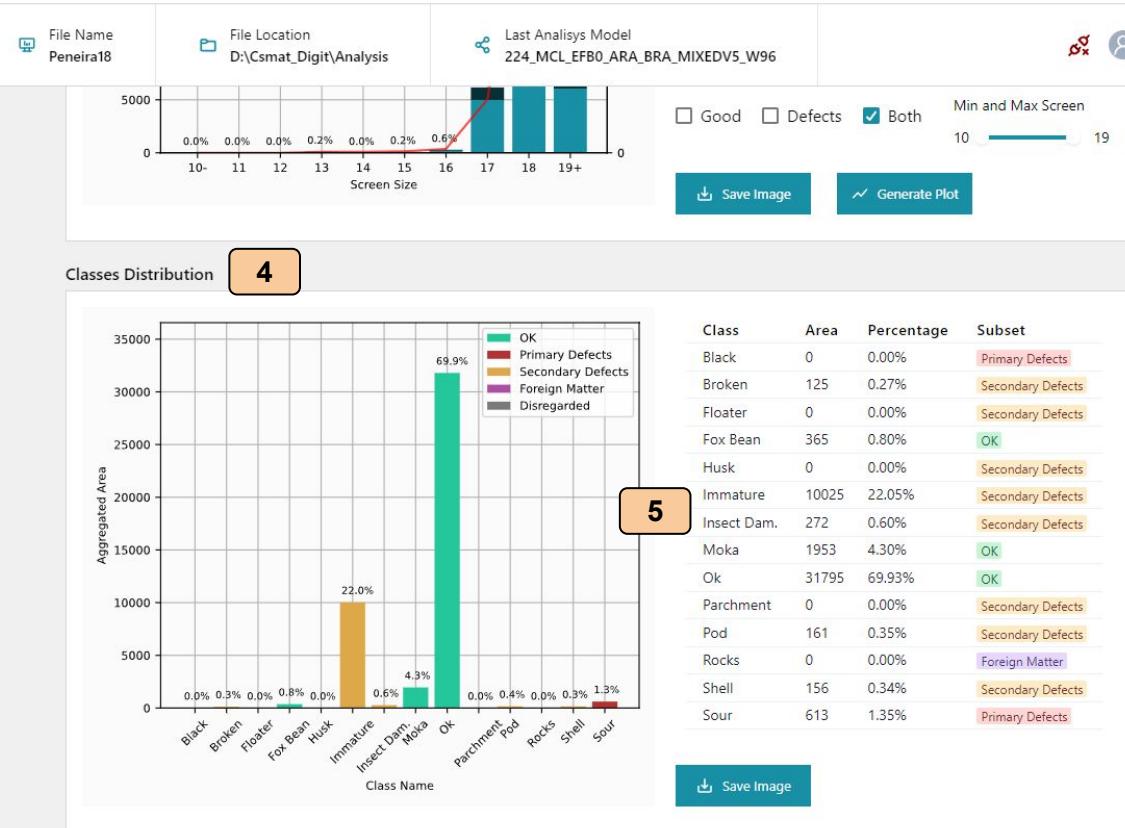
- Upload Analysis

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## Dashboard

4. O quadro **Classes Distribution** mostra a distribuição das classes classificadas na amostra

5. Na tabela indicada é possível verificar o percentual de cada classe

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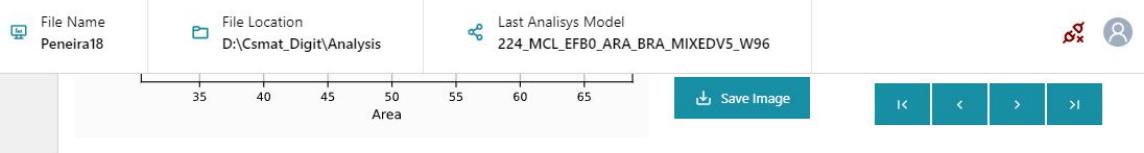
Evaluate Model

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Classification Methods

6

Total Defects

216

Weight Factor: 2.27

Method

COB

NY

Equivalent Defects

116

130

Type

Tipo 6/7

NY 6/7

COB

NY

Class	Original Count	Weighted Count	Factor	Equivalent Defects
Black	0	0	1 to 1	0
Broken	3	7	5 to 1	2
Floater	0	0	5 to 1	0
Fox Bean	7	16	0	0
Husk Small	0	0	3 to 1	0
Husk Medium	0	0	3 to 1	0
Husk Large	0	0	1 to 1	0
Immature	190	432	5 to 1	87
Insect Dam.	5	11	5 to 1	3
Moka	37	84	0	0
Ok	610	1386	0	0
Parchment	0	0	2 to 1	0
Pod	3	7	1 to 1	7
Rocks Small	0	0	3 to 1	0
Rocks Medium	0	0	1 to 2	0
Rocks Large	0	0	1 to 5	0
Shell	3	7	3 to 1	3
Sour	12	27	2 to 1	14

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# Dashboard

6. No quadro Classification Methods pode ser verificado o métodos de classificação como COB ou NY

7. Na tabela ao lado pode-se verificar a quantidade de ocorrências por classes e os defeitos equivalentes para cada tipo de defeito.

# Mosaico de Imagenes

# Mosaico de Imagens

C Csmart Digit | Csmart Coffee Technologies S.A. v.3.1.4

File Name: LOTE\_1752\_23\_CAFEZAL | File Location: D:\Csmat\_Digit\Analysis | Last Analysis Model: 224\_ARA\_BRA\_MINASUL\_SEGFORMA\_94\_V4

Quality Control

1. Clique em **Image Mosaic** para ver em detalhes cada foto da análise

2. A esquerda ficam os grãos sem defeito

3. A direita os grãos com defeito

Non Defective Seeds  
OK Classes  
368 Seeds | 86.56%  
Dominant Color: RGB(155, 152, 120)  
 Color by Class  
 Draw Perimeter  
 Draw Min Axis

Defective Seeds  
NOK Classes  
76 Seeds | 13.44%  
Dominant Color: RGB(145, 144, 115)  
 Color by Class  
 Draw Perimeter  
 Draw Min Axis

Page 1 / 3 | Edit Selection | Page 1 / 1 | Clear Selection

1. Clique em **Image Mosaic** para ver em detalhes cada foto da análise

2. A esquerda ficam os grãos sem defeito

3. A direita os grãos com defeito

# Exportar Imagens

The screenshot shows the Csmart Digit software interface. The left sidebar has a 'Quality Control' section with 'Home', 'Artificial Intelligence', 'Dashboard', 'Image Mosaic', 'Lot Info', 'Classification Report', 'Export Data', and 'Export Images' (which is highlighted with a blue box and has a large orange '1' box around it). Below this are 'Cloud | Local Server' and 'AI Model | Dataset' sections. The main area shows a 'Quality Control' section with 'Export Images' (highlighted with a blue box and has a large orange '1' box around it) and a 'Last Analisys Model' section. A central dialog box titled 'Export Images' is open, containing the following steps:

1. Please select the image export mode:
  - Export all classes (Classification results)
  - Export as a single class (Dataset creation)
  - Export corrected images only (Model improvement)
2. Click 'Export Images' to save individual images
3.  Open folder after saving

The 'Export Images' button is highlighted with a large orange '2' box. The 'Open folder after saving' checkbox is highlighted with a large orange '3' box.

# Exportar Imagens

1. Clique em **Export Images** para abrir a tela de salvamento de imagens.
2. Clique em **Export Images**
3. Certifique-se de que o botão **Open Folder After Saving** esteja habilitado para que a pasta com as imagens se abra ao término

# Exportar Relatório

1. Clique em **Classification Report** para abrir a tela de exportar relatórios.

2. Selecione Portugês para exportar o relatório em português.

3. Clique em **Only Good** para apresentar no relatório as peneiras somente de café bons (café catado).

4. Clique em **Generate PDF** para gerar o arquivo final de relatório

5. Certifique-se de que **Open PDF after Export** esteja habilitado para que o relatório abra automaticamente.

# Exportar Relatório



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