

# Console

The console is an element of the [main GUI](#). Data appears in the console when a sample or a curve is highlighted in the [main GUI](#) and when operations have completed such as [dose estimation](#). The console displays information in real-time, while [reports](#) can be used to save information related to [samples](#), [calibration curves](#), or [dose estimation](#) results. The console also contains tabular output when a [plot](#) is generated, providing a method to view the numerical data which forms the plot.

## Example console output

The console is updated in real-time upon completion of a variety of events. Some example console output is shown below.

### A sample has completed processing

```
----- May 23 15:43:13
Summary of Processing Sample: Xray 0
In the file folder of Xray 0: D:\BioDosimetry Curve Data\AECL\Xray 0
500 image file(s) are found in total. 500 file(s) are processed. 0 file(s) are damaged, corrupted or missing.
```

### A sample is highlighted

```
----- May 23 15:16:46
Sample: CNL2GyAll
Description:
Images in total: 996
Images path: D:\BioDosimetry Curve Data\AECL\CNL Xray 2Gy All Inv
DC analysis result in all 996 images
DCs in all images, FP flag 126
-----
| SVMs          | Sigma 0.8 | Sigma 0.9 | Sigma 1.0 | Sigma 1.1 | Sigma 1.2 | Sigma 1.3 | Sigma 1.4 | Sigma 1.5 | Sigma 1.6 | Sigma 1.7 | Sigma 1.8 |
| DC Count      | 6         | 37        | 65         | 132        | 193        | 247        | 289        | 349        | 409        | 447        | 489        |
| DC Frequency  | 0.006    | 0.037    | 0.065     | 0.133     | 0.194     | 0.248     | 0.290     | 0.350     | 0.411     | 0.449     | 0.491     |
-----
DC analysis result in 996 selected images, no image selection applied, using all images
DCs in selected images, FP flag 126
-----
| SVMs          | Sigma 0.8 | Sigma 0.9 | Sigma 1.0 | Sigma 1.1 | Sigma 1.2 | Sigma 1.3 | Sigma 1.4 | Sigma 1.5 | Sigma 1.6 | Sigma 1.7 | Sigma 1.8 |
| DC Count      | 6         | 37        | 65         | 132        | 193        | 247        | 289        | 349        | 409        | 447        | 489        |
| DC Frequency  | 0.006    | 0.037    | 0.065     | 0.133     | 0.194     | 0.248     | 0.290     | 0.350     | 0.411     | 0.449     | 0.491     |
-----
```

### A curve is highlighted

```
----- May 23 15:20:43
Curve: TestCurve
Description:
Combined Filter 4.0, 3.0, 4.0, 5.0, 2.0, 1.0, Top 250 images, No 0.5 Gy, Image filter [40, 65] applied before sorting images, All FP Filters enabled mask 1111110, sigma 1.5
SVM Sigma: Sigma 1.5; Applicable Range [0.0Gy - 4.0Gy]
Applied Image Selection Model File: None
Coefficients of Curve
-----
| Terms          | Intercept | Dose^1    | Dose^2    |
| Coefficients  | 0.038172 | 0.076590 | 0.007157 |
| S.D. +/-      | 0.006698 | 0.007934 | 0.001902 |
-----
Fitting Stats: Chi-square 0.000101308; R2 (Coefficient of Determination) 0.999899; Degrees of Freedom 2
```

## Dose estimation is performed

----- May 23 15:22:24  
 Dose Estimation using Curve: **TestCurve**  
 Dose Estimation Result

DC Frequency Name	DC Frequency	SVM	Estimated Dose	Dose 95% LCL	Dose 95% UCL	CL Uncertainty	Applied Image Selection Model
INTC003S04_All_Sigma 1.5_0.445	0.445141	Sigma 1.5	3.90Gy	Disabled	Disabled	CL is disabled	No image selection is applied
INTC003S05_All_Sigma 1.5_0.530	0.529797	Sigma 1.5	*4.00 Gy	Disabled	Disabled	CL is disabled	No image selection is applied
INTC003S07_All_Sigma 1.5_0.570	0.570068	Sigma 1.5	*4.00 Gy	Disabled	Disabled	CL is disabled	No image selection is applied

CL: confidence limit. LCL, UCL: lower, upper CL.  
 \*(if present in table): the estimated dose or dose CL is out of bounds.  
 ^ (if present in table): the calibration curve is ill-formed at region of the estimated dose. The DC frequency matches multiple doses

## A classified object / segmented object plot is generated

----- May 23 15:34:18  
 Classified Ratio Distribution in sample **CNL3GyAll**  
 Distribution part 1

Classified Ratio Range	[0.00, 0.05)	[0.05, 0.10)	[0.10, 0.15)	[0.15, 0.20)	[0.20, 0.25)	[0.25, 0.30)	[0.30, 0.35)	[0.35, 0.40)
Percentage of Such Images	0.008	0.000	0.000	0.001	0.001	0.005	0.010	0.017

Distribution part 2

Classified Ratio Range	[0.50, 0.55)	[0.55, 0.60)	[0.60, 0.65)	[0.65, 0.70)	[0.70, 0.75)	[0.75, 0.80)	[0.80, 0.85)	[0.85, 0.90)
Percentage of Such Images	0.078	0.078	0.076	0.094	0.099	0.109	0.108	0.105