

# Aimag QC

Digital Histopathology Images Quality Control.  
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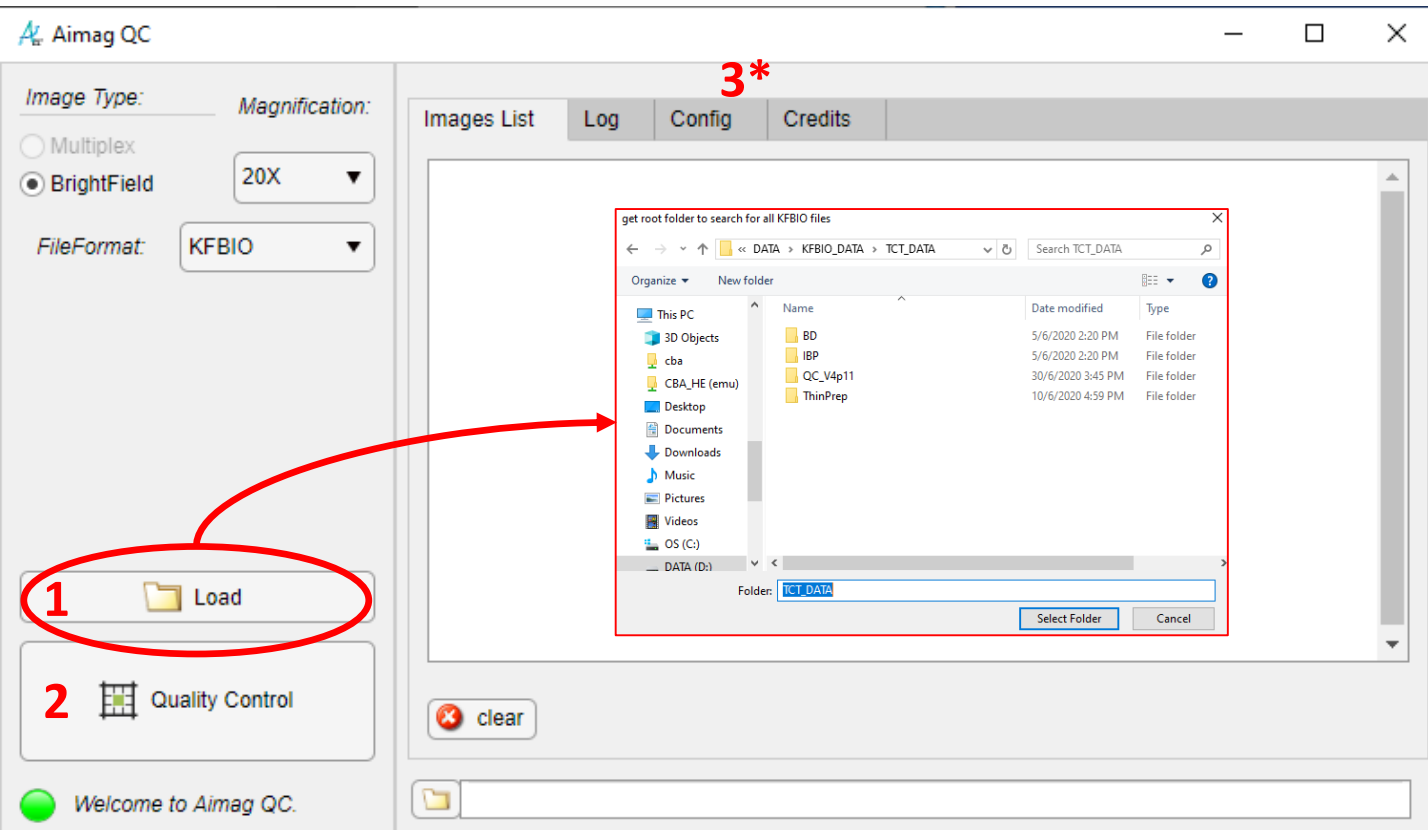
*Quality Control*

*Aimag QC Version 4.2 Created by Laurent Gole . [lgole@aimaginostic.com](mailto:lgole@aimaginostic.com)*

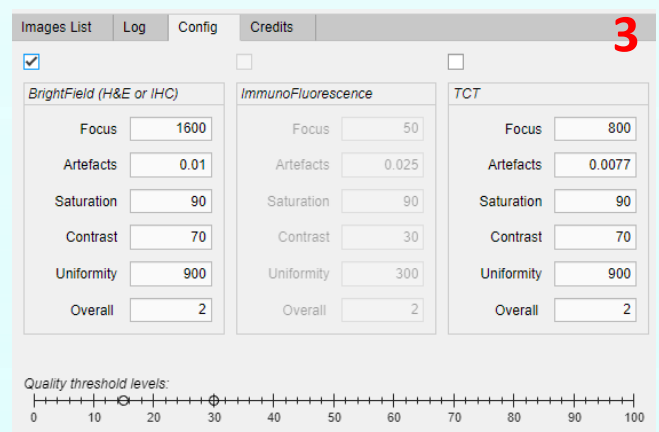


- I. Quick Start**
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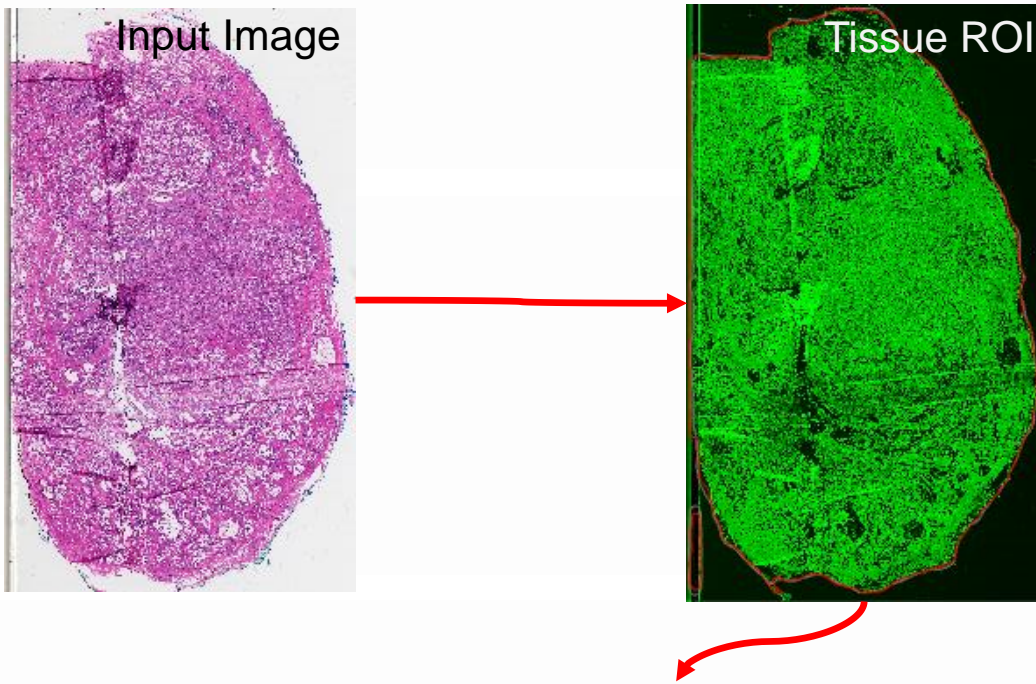
# Quick Start



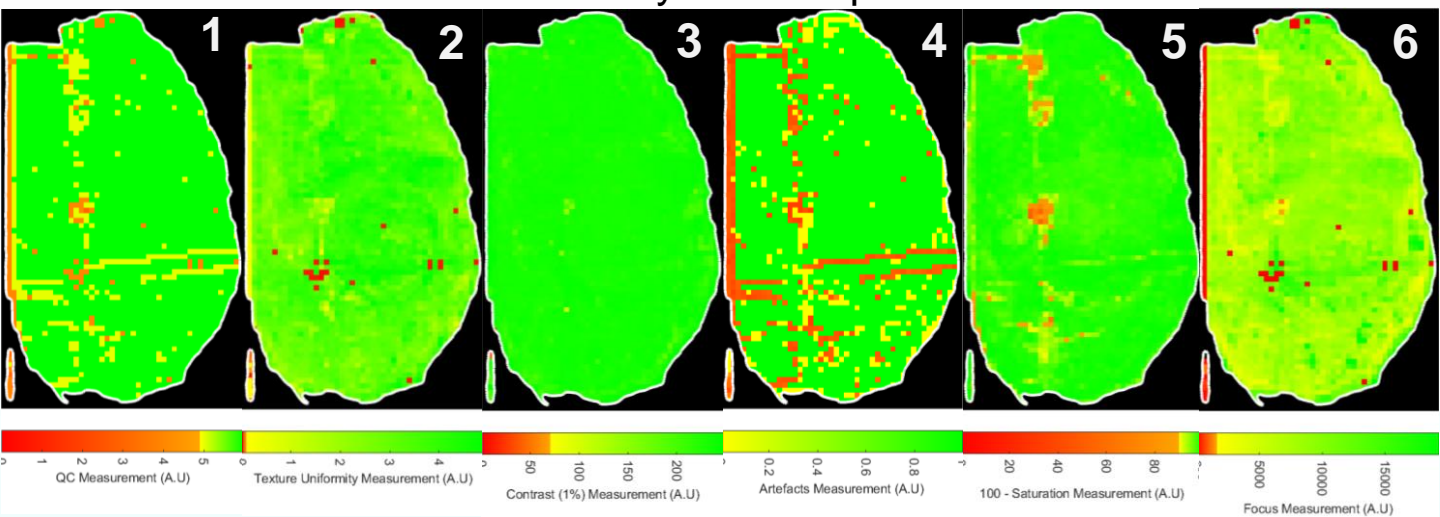
1. Press Load and Select a Root Folder Containing a List of Images or a List of Subfolders with Images. ( Detects all “.kfb” files in folder and subfolders.)
2. Press Quality Control button to Start the Quality Assessment of all Files in Images List Listbox.
3. Select BrightField or TCT



# Outputs



Quality Heat maps



Visual representation of the Quality Assessment of the image Texture , Contrast, Artefacts, Saturation and Focus (2-6). The QC measurement (1) is a linear combination of the 5 aforementioned image properties.

# Output

## Summary of quality measurements

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Image_Name	Image_Root	Image_Type	Image_Magnification	Low_Focus_Pct	Artifacts_Pct	Low_Contrast_Pct	Saturation_Pct	High_Uniformity_Pct	Global_Low_Quality_Pct	Focus_Area_Pct	Tissue_Area_Pct	Number_of_Tiles	Status
2	26216_17_A15	10/1/2020	BrightField	20X	7.13787123	4.827637317	1.402305558	0.89381267	6.495503844	7.915372862	93.70482242	77.86734375	3722.34922	Valid
3	78822020-01-02_15_55_14	2/1/2020	BrightField	20X	3.347236323	10.64727702	1.541237303	10.50803594	2.369021885	6.987682592	100.4039872	75.38997336	3213.21836	Valid
4	81642020-01-02_15_51_19	2/1/2020	BrightField	20X	4.078844568	12.89785808	0.828570829	3.821191648	2.253695413	6.117862333	93.33383105	74.03308235	2842.15292	Valid
5	994_16_A20_correo2020-01-10_13_45_03	10/1/2020	BrightField	20X	3.354540448	12.25763029	0.127684641	2.708879368	1.387794287	4.582686431	100.0592014	75.5146983	2770.42717	Valid
6	AL_1_2020-02-18_11_09_26	SBIC_HE_20X_20200218_KFB	BrightField	20X	0	3.058589903	0.122626122	81.71567156	0.349619844	0.122626122	109.109202	13.68639055	121.05088	Valid
7	AL_2_2020-02-18_11_09_31	SBIC_HE_20X_20200218_KFB	BrightField	20X	0	4.32436957	0	92.24706535	0	1.624593225	102.1325814	35.53807219	293.24468	Valid
8	AL_3_2020-02-18_11_07_24	SBIC_HE_20X_20200218_KFB	BrightField	20X	0	3.941122176	0.036573298	85.53027303	0.171681313	1.6448225	102.6673719	30.23532753	277.58893	Valid
9	AL_4_2020-02-18_11_06_40	SBIC_HE_20X_20200218_KFB	BrightField	20X	1.080984126	3.97349304	0	99.83334743	0.044760057	5.02804106	100.3271906	47.11655792	250.49119	Valid
10	BL_1_2020-02-18_11_05_53	SBIC_HE_20X_20200218_KFB	BrightField	20X	0	0	0	99.707320946	0	0	101.1603837	32.16685268	218.64332	Valid
11	BL_2_2020-02-18_11_18_51	SBIC_HE_20X_20200218_KFB	BrightField	20X	0	4.745082907	0	48.85638861	0.403418397	3.767204013	104.5520194	14.91930084	125.93822	Valid
12	BL_3_2020-02-18_11_18_03	SBIC_HE_20X_20200218_KFB	BrightField	20X	0	14.24845758	0.089016437	60.20747649	0.547713779	2.540198988	108.3279408	18.93868046	134.1887	Valid
13	BL_4_2020-02-18_11_16_56	SBIC_HE_20X_20200218_KFB	BrightField	20X	9.079850302	4.486184913	0	22.46896846	0.150135377	2.401594281	103.7865171	21.77007568	243.11392	Valid
14	demo1	KFB_FORMAT_TEST	BrightField	40X	1.803199221	0.486162889	0.162054296	33.11422512	1.803199221	2.127307813	105.2119179	72.28625	617.07713	Valid
15	demo2	KFB_FORMAT_TEST	BrightField	40X	6.887583851	0.285193901	0.598178652	25.23695656	6.887583851	6.887583851	101.9538917	71.97334835	701.27727	Valid
16	demo3	KFB_FORMAT_TEST	BrightField	40X	1.2184475	0	3.977138159	0	1.23539737	1.23539737	106.3264368	71.19486325	494.97677	Valid

Low_Focus_Pct	Artifacts_Pct	LowContrast_Pct	Saturatio_Pct	High Uniformity_Pct	Global Low Quality Pct	Tissue_Area_Pct	Number of Tiles	Status
3.35	12.25	0.12	2.70	1.38	4.58	75.51	2770.42	Valid

- Percentage of “Tiles” ( 256\*256 contiguous blocks of the Tissue Region of Interest) Below Quality Threshold.
- Low Focus : % of tiles with a low focus
  - Artifacts : % of tiles with Artefacts ( dust ,folding, cluster, ...)
  - Low Contrast : % of tiles with a low contrast ( faded staining, empty regions, ...)
  - Saturation : % of tiles with saturated colors ( strong stain, clusters, ...)
  - Uniformity : % of tiles with a smooth Texture ( faded stain, slight out of focus, ...)
  - Global Low quality : Linear combination of 5 aforementioned measurements.
  - Tissue Area : % of Image Area that contains Tissue.
  - Number of Tiles : Weighted Number of Tiles with in Tissue Area. ( Tiles on Tissue edges have less weights since cropped by Tissue Region boundary.)
  - Status : Aimag QC estimated image Quality:

- *Valid*: image can be used for diagnosis/ further processing
- *To Check*: image may be used for diagnosis if reviewed by specialist
- *Rejected*: image quality is too low for diagnosis/ further processing