



Automated Target Area Delineation

[Precision]

The prominent advantage of AccuContour

AccuContour® can automatically delineate 60+ normal organs and some tumors in cancer patients fast and accurately. The DSC values of auto-delineated contours are around 0.90, and the HD value is within 3.5 mm. During clinical trial use, radiotherapy practitioners agreed that majority of the contours can be directly applied without modification in treatment planning. Modification takes only a few minutes at most.

Metrics and evaluation of the auto-delineated contour accuracy (some organs)

Name	DSC	Pint	Name	DSC	Pint
Temporal Lobe	0.88	1	Bladder	0.90	1
Brain	0.97	1	Bowel Bag	0.85	1
Brain Stem	0.92	1	Femur Head	0.95	1
Spinal Cord	0.88	1	Marrow	0.91	1
Eye	0.92	1	Kidney	0.95	1
Pituitary	0.85	1	Liver	0.97	1
Mandible	0.91	1	Stomach	0.85	1
TMJ	0.85	1	Esophagus	0.85	1
Oral Cavity	0.94	1	Heart	0.92	1
Larynx	0.91	1	Lung	0.98	1
Parotid	0.88	1	Trachea	0.89	1

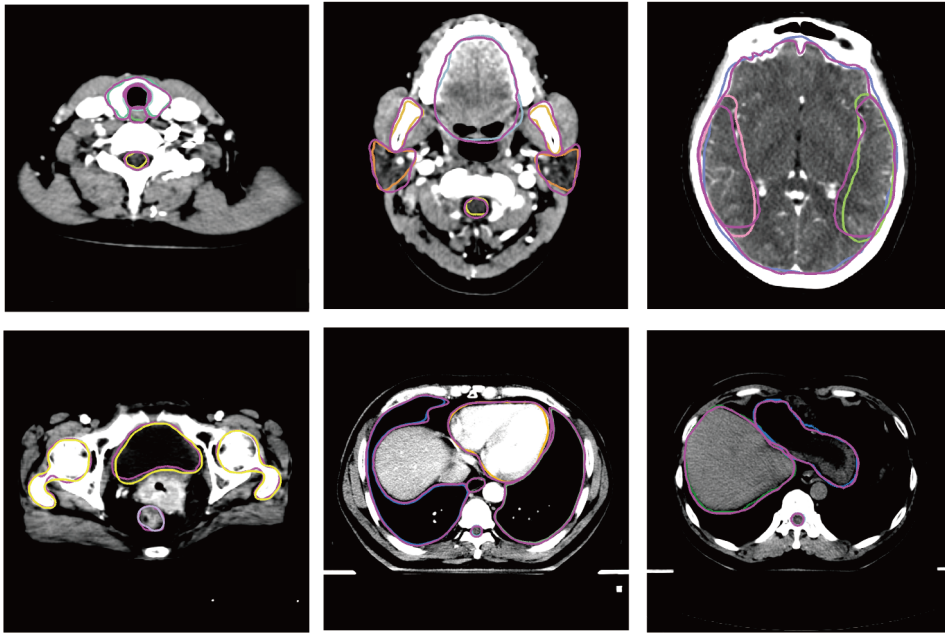
Pint scoring criteria:

- 1: It can be used directly without modification.
- 2: It can be used with little modification, greatly reducing workload.
- 3: Modification is needed, but it can reduce workload in a certain degree.
- 4: A large number of modifications are needed, therefore it cannot reduce workload.

AI-ASSISTED MEDICAL IMAGE AUTO-SEGMENTATION

 **AccuContour®**

The contours drawn automatically by Manteia AccuContour® have good overlap with the contours drawn manually, and minimal manual corrections are needed.



The red line is the result of AccuContour® auto delineation.

Multi-modality image registration

Multi-modality image registration module utilizes the complementary advantages of various medical images to enable doctors to segment accurately the areas on CT images identified only by registered images with different modality, and to provide accurate registration images for real-time image guidance.

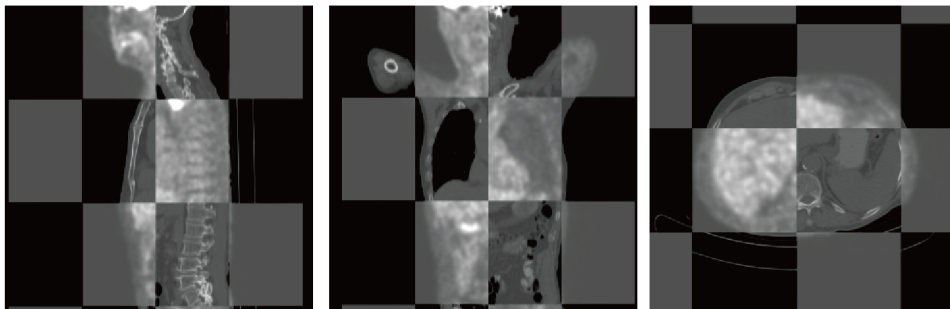


Image registration fusion effect

Product interface



Major function modules

- Automated target area mapping (OAR/partial GTV/CTV)
 - Multimodal image registration
 - Dose accumulation
 - Radiomics analysis

Product advantage



Precision

Unlike traditional algorithms based on ATLAS and registration, the accuracy of the new algorithm is increased from 0.7 to 0.9 based on DICE metric.



High speed

Automatic segmentation in seconds, shortening the delineation time from hours to 1–2 minutes.



Full coverage

The delineation of 62 normal tissues and organs and part of the tumor target areas in the whole body of cancer patients.



Individualization

Output of personalized automatic delineation model according to different delineation criteria and test schemes of each center



Compatible and open

Robust system plugin capability, seamless connection to radiotherapy hardware and software from all vendors.



New Functions

Multiple image indicators analysis to promote individualized adaptive radiotherapy.

Research Collaboration



In-depth collaboration with many medical institutions around the world

Global Leading Adaptive Radiotherapy Solutions

Manteia research collaboration program is open, flexible and win-win

International/national joint research projects

Joint initiation of radiotherapy multicenter research

Collaborate and promote the transfer and commercialization of research results

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