Wavelet Band-pass Filters for Matching Multiple Templates in Real-time
User Provided Dataset I
One Logo per Frame
WBPFs filtered results

Normalized response density with respect to different template scales

Max response density in all searching scale

Normalized density score

Scale = 20%
Scale = 30%
Scale = 40%
Scale = 50%
Scale = 60%
Scale = 70%
Scale = 80%
Scale = 90%
Scale = 100%

Scale size

Horizontal
Vertical
Diagonal

Best Scale
WBPFs filtered results

Normalized response density with respect to different template scales

Max response density in all searching scale

Normalized density score

Scale size

Frame Image

Template Image

Matching Template
Normalized response density with respect to different template scales.

Max response density in all searching scale.

Best Scale
WBPFs filtered results

Normalized response density with respect to different template scales

Max response density in all searching scale

Scale size

Normalized density score

Best Scale
WBPFs filtered results

Normalized response density with respect to different template scales

Max response density in all searching scale

Frame Image

WBPFs filtered results

Normalized response density with respect to different template scales

Best Scale

Matching Template
Normalized response density with respect to different template scales.
WBPFs filtered results

Normalized response density with respect to different template scales

Max response density in all searching scale

Frame Image

Template Image

WBPFs filtered results

Normalized response density with respect to different template scales

Matched Template
User Provided Dataset II
One Logo Class (Multiple Matching ROIs) per Frame
WBPFs filtered results

Normalized response density with respect to different template scales

Max response density in all searching scale

Horizontal
Vertical
Diagonal

Best Scale
Normalized response density with respect to different template scales

Max response density in all searching scale

Best Scale
Normalized response density with respect to different template scales.

Max response density in all searching scale.

Best Scale.
Normalized response density with respect to different template scales.

Max response density in all searching scale.

Best Scale