Crop Windows for the Shift-Invariant Dynamic Texture Recognition Experiment

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The "shift-invariant recognition" experiment reported in Sec. 3.3 of (Derpanis & Wildes, 2010) closely follows previous shift-invariant experiments using the UCLA database (Saisan, Doretto, Wu & Soatto, 2001), as described in (Woolfe & Fitzgibbon, 2006). Each sequence was spatially partitioned into left and right halves (window pairs), with a few exceptions. The exceptions arise as several of the imaged dynamic textures are not spatially stationary; therefore, the cropping regimen described above would result in left and right views of different dynamic textures for these cases. For instance, in several of the fire and candle samples, one view would capture a static background, while the other would capture the flame. In evaluation, all cases in the database were retained with special manual cropping introduced to the non-stationary cases to include their key dynamic features; Table 1 documents the special crop windows used for these cases. Additional discussion of the experimental protocol, including comparison to others (e.g., (Woolfe & Fitzgibbon, 2006)), is provided in (Derpanis & Wildes, 2010).

References

Derpanis, K. & Wildes, R. (2010). Dynamic texture recognition based on distributions of spacetime oriented structure. In *CVPR*.

Saisan, P., Doretto, G., Wu, Y. & Soatto, S. (2001). Dynamic texture recognition. In *CVPR* (pp. II:58–63).

Woolfe, F. & Fitzgibbon, A. (2006). Shift-invariant dynamic texture recognition. In *ECCV* (pp. II: 549–562).

Filename prefix	**Frame index**	**Crop windows**			
		View 1		View 2	
		Top left (x, y)	Bottom right (x, y)	Top left (x, y)	Bottom right (x, y)
fountain-a-far-1	1 to 75	(1,20)	(80,80)	(81,30)	(160,110)
	76 to 150	(1,20)	(80,80)	(81,30)	(160,110)
fountain-a-far-2	1 to 75	(1,20)	(80,80)	(81,30)	(160,110)
	76 to 150	(1,20)	(80,80)	(81,30)	(160,110)
fountain-a-mid-1	1 to 75	(1,10)	(60,110)	(70,30)	(140,110)
	76 to 150	(1,10)	(60,110)	(70,30)	(140,110)
fountain-a-mid-2	1 to 75	(1,10)	(60,110)	(70,30)	(140,110)
	76 to 150	(1,10)	(60,110)	(70,30)	(140,110)
fire-3	1 to 75	(70,1)	(105,110)	(106,1)	(160,110)
	76 to 150	(70,1)	(110,110)	(111,1)	(160,110)
fire-7	1 to 75	(1,1)	(50,110)	(51,1)	(101,110)
	76 to 150	(1,1)	(50,110)	(51,1)	(101,110)
candle-4	1 to 75	(1,14)	(160,48)	(1,49)	(160,83)
	76 to 150	(1,14)	(160,48)	(1,49)	(160,83)
candle-5	1 to 75	(1,14)	(160,53)	(1,54)	(160,83)
	76 to 150	(1,14)	(160,53)	(1,54)	(160,83)

Table 1: Special crop windows for non-stationary cases. "Filename prefix" refers to the image sequence filename used in the original UCLA database. The origin is located at the top left corner of the image sequences with the x and y axes increasing in the right and down directions, respectively.