Revised: AGRC Tile Caching Strategy

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Updated 12/08/09: We changed the level numbers to account for the fact that we will not have the need for the coarsest scales (see M1-M5 below where M stands for'Minus'). Also, the cach MXD has been updated

AGRC is currently working on a caching strategy for creating a cache of static base map images at various scales for use with ArcGIS Server applications. Download Utah ArcMap caching project, version 3 (.mxd).

In the first round of caching, we generated 691,000 .jpg tile files which took up 55 GB of disk space. This did not include any caching at the finest scale levels (14 & 13) as these are programmed to be cached on demand.

Our strategy attempts to follow the tile-caching scales utilized by Google and Microsoft online maps. In addition we have created breakpoints between these tile scales for use with dynamic maps. Think of the breakpoints as the list of potential scale dependencies that can be used for the upper and lower scale criteria.

	AGRC Level	Google Tile Scale
Break Point	14	1128.50
		1500
	13	2256.99
		3000
	12	4513.99
		6250
	11	9027.98
		12500
	10	18055.96
		25000
	09	36111.91
		50000
	08	72223.82
		100000
	07	144447.64
		200000
	06	288895.29
		400000
	05	577790.58
		800000
	04	1155581.15
		1600000
	03	2311162.31
		3500000
	02	4622324.61
		7000000
	01	9244649.23
		14000000
	00	18489298.45
		25000000
	M1	36978596.91
		50000000
	M2	73957193.82
		100000000
	M3	147914387.60
		200000000
	M4	295828775.30
		400000000
	M5	591657550.50