

An Animated Presentation of the Dresden "Altai-GIS"

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Summary:

The Dresden "Altai-GIS" is a mature ecological GIS of the fascinating South-Siberian mountain landscape, which covers topographic data and selected thematic data of ecological relevance within two detail levels, termed "Altai 100" and "Altai 1000" according to scale classes of 1 : 100,000 and 1 : 1,000,000. Data capture and integration is going on for now around ten years. Information sources are analogue maps, tabular information, scientific publications, geo-scientific field work and remote sensing data. From the present "Altai-GIS" animated sequences have been produced in 2004 to result in a film termed "The Russian Altai – New Approaches to Comprehend a Landscape". Compared to static geo-data presentations, animations obviously perform superior in displaying temporal dynamics. Dynamic sequences also help in adjusting the information flow to the user's capabilities, a major benefit when the contents of a complex GIS shall be conveyed. Several transformations of the initial GIS data precede the actual animation task. Herein, properties of the display media, the level of detail within geometry and graphic texture, the dynamics of virtual camera, and integration modes for legends or scale bars all have to be observed. Moreover, animated sequences often require observations with a constant time scale. Therefore, realistic methods had to be developed to deliver predictions of the state of the dynamic elements in-between the primary observations.