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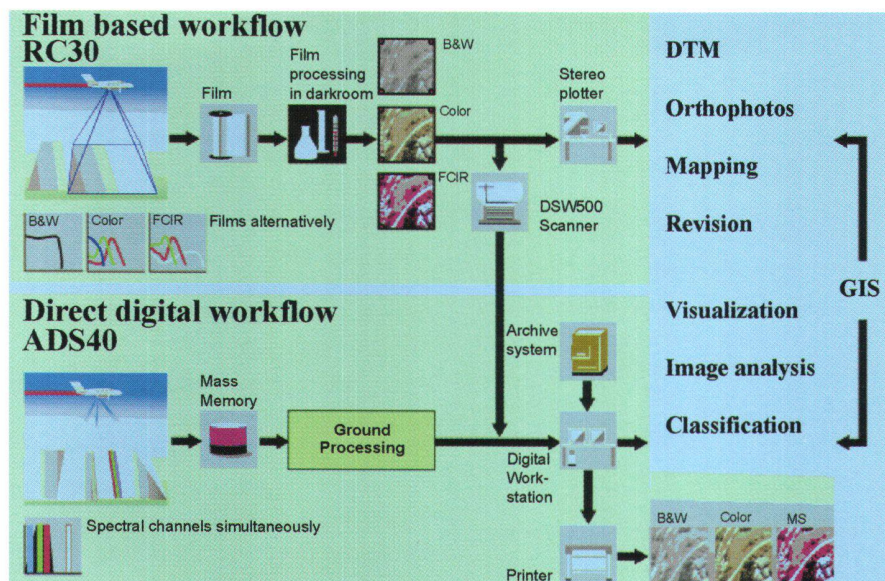


Fig. 5: Comparison of film and digital flowlines.

mandatory. There is no «fall back» to the original film in the can if a digital process goes wrong. Therefore a systematic, modern approach to the storage and cataloging of terabytes of data and metadata can hardly be avoided. Secondly, the geometry of the three-line-scanner is not familiar to all practitioners and some concepts must be understood. There is relief displacement, for example, outwards from the center of each strip but in the case of the nadir sensor there is none along the strip and in the case of the forward and backward sensors the displacement is constant for an object of given height, and does not vary with position along the strip. There is no parallaxic angle in the traditional sense, controlled by airbase and principal distance: the stereo angles between the three panchromatic views are functions of the principal distance and the layout of the focal plane –

they cannot be varied by project planning. In film imagery with 60% forward overlap, 60% of the terrain appears in three images – the triple overlap – whereas with three-line-scanner imagery every point appears in three images. This means that triple image matching can be used for triangulation and DTM generation, which adds robustness but also computational effort.

Whilst the success of the ADS40 seems assured, with leading RC20/30 customers already expressing interest worldwide and in some cases ready to place orders straightaway, sales levels depend on several factors. Product positioning, for example, must be tackled since LH Systems wishes to continue to sell RC30 film cameras at significant levels for some years to come. A critical one is that in its quest to sell the remote sensing merits of the ADS40, LH Systems must penetrate un-

familiar markets. And another is the importance of LH Systems' competitors implementing algorithms in their software to cope with ADS40 data. This seems likely to happen, as it is of benefit to all parties concerned, and LH Systems has facilitated the process by making freely available an InfoKit containing the tools needed to do so.

So the new era has dawned. The doyen of film camera vendors has introduced a high performance digital sensor, capable of photogrammetric accuracy and coverage on the one hand and multispectral data on the other. The attractions of all digital flowlines are clear. Interest in the product has proved immense. LH Systems' challenges now are to deliver and support the ADS40 with the same competence that has accompanied the film cameras for so many years.

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Peter Fricker
Rainer Sandau
LH Systems GmbH
Heinrich-Wild-Strasse
CH-9435 Heerbrugg
e-mail: fricker@lh-systems.com
e-mail: sandau@lh-systems.com
<http://www.lh-systems.com>

Stewart Walker
LH Systems LLC
10965 Via Frontera
San Diego, CA 92127-1703
USA
e-mail: walker@lh-systems.com

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