

SMARTCONSTRUCTION: Integrated management of project design, construction, QA and completed assets

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Komatsu's SMARTCONSTRUCTION technology provides integrated product, service and support solutions across all phases of a project, from planning and design, through to construction, and ongoing asset management.

Taking an industry Best Practice approach, SMARTCONSTRUCTION covers all critical steps in a project's development, from initial site survey and design, through to machine control management, machine interconnectivity and review of project progress during the construction phase, and finally development of detailed as-built information for future construction and infrastructure maintenance.

Komatsu has integrated these technologies through the introduction of drone-based survey and site management technology, together with cloud-based information management, supported by a team of technology solution experts.

SMARTCONSTRUCTION covers four key areas:

1. A UAV (unmanned aerial vehicle) drone service, covering initial site survey, along with cut/fill and stockpile calculations, as well as ongoing progress tracking and site logistics.
2. 3D data services, covering conversion of 3D data files to formats suitable for machine control applications, along with a best-industry practice 3D design consultancy, development and management service over the life of a project.
3. Cloud-based data management, bringing together all the information relating to a project, from initial survey, design drawings and construction plans, through to machine control data files, daily project progress data generated by machines and survey equipment as the job progresses, and final as-built information once a project is completed.
4. Support services, covering remote monitoring, remote file transfer and operating training; iMC (intelligent Machine Control) advice, project integration and site set up; assistance and professional consultancy with 3D design file development; troubleshooting and servicing of machines and control systems.

SMARTCONSTRUCTION is the next development in construction industry management technology, bringing together key technological developments of recent decades in an integrated end-to-end solution.