

Tools, Tips and Workflows

Using GeoCue to Track Productivity For Your Team

GeoCue



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The GeoCue production environment includes tools for tracking and reporting project management metrics. We have seen over the years that organizations that closely monitor project metrics respond sooner and react more effectively when problems arise in production, essentially taking advantage of GeoCue as an early warning system to flag corrective action based on actual performance. After all, unlike good wine, bad news does not age well; the sooner problems in production can be identified the sooner they can be addressed. Of course, nothing replaces the hands-on, day-to-day involvement of a seasoned, experienced production manager in meeting deadlines and staying on budget, but using the tracking tools already in GeoCue allows managers to quickly confirm the 80% of the situation they already knew to be true while highlighting the 20% that they may not have noticed was slipping or, worse, thought they knew was on-track, but it turns out “it ain’t so”.

One project metric that is always important to any organization is productivity or basically how much work are we getting done in a given amount of time. And are we getting better or worse at it – doing more work, less work or about the same amount of work – as time goes by. This is an excellent example of information about your business that you simply can’t measure and manage at the macro level if you aren’t tracking it at the micro level. So it is no surprise we are increasingly seeing GeoCue users take advantage of GeoCue’s built-in tools for monitoring productivity across their projects and production team. Labor costs – your hard-working employee’s daily efforts – are often the dominant cost contributor to geospatial data production, after the investment in hardware and the challenging logistics of field work of course! Labor effort also represent the one area where an organization can gain a sustainable competitive advantage by implementing robust management tools that reinforce planning, performance and accountability to the larger business goals of the organization. In GeoCue we track labor costs as actual effort, usually measured in hours, worked on tasks in your projects. Measuring productivity then becomes a matter of tracking actual effort against plan or against other targets such as historical efforts. Being able to track actual effort against plan is essential to identifying problems early and adapting your plans accordingly.

Consider a common task in any LIDAR mapping project; editing the point cloud. This may be either for QA/QC after automated batch processing or for actual feature compilation or other interactive tasks. Typically the labor for this effort is a major contributor to the back office data processing costs, so measuring and managing it effectively and accurately is always key to staying on budget and on schedule. Often production managers will resort to manually-maintained spreadsheets and daily “update meetings” to stay on top of the editing work-in-progress and try to identify problems early. It is an easy approach most people are comfortable with, but it has serious drawbacks. While such systems can be effective at identifying major problems immediately – after all most of us can see when the train is going off the rails – they almost always fail to capture the smaller problems that can and do go unnoticed while insidiously pushing you off plan and over budget (or worse behind schedule).

For projects being managed in a GeoCue workflow – and really shouldn’t they all be? – there are some immediate tools to help replace the spreadsheet/status meeting paradigm for tracking progress and reporting metrics. Since all data in the GeoCue production database is updated in real time as technicians go about their daily tasks, tracking project metrics in GeoCue is simply a matter of extracting that

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information in a suitable report. Direct reporting means the production manager has timely, accurate information when and where they need it to make better-informed decisions. Manual compilation of spreadsheets is eliminated – a productivity gain in itself! – and less time is needed for daily or weekly status meetings. GeoCue's Project Administrator tool allows production managers to build custom reports for any combination of the standard earned value metrics already configured in GeoCue. For productivity analysis this is generally taken to be actual effort. How much time is it taking to get the work done? How does that compare to what we planned? What do we need to correct now to avoid future problems?

Figure 1 shows one such Actual Effort report from GeoCue. This report view is a list view similar to a spreadsheet (in fact the view can be exported easily to Excel for more detailed analysis if desired) with each row corresponding to a working segment or LIDAR tile in the project. Each major column – Edit in TerraScan and QA/QC in LP360 EQC – corresponds to the monitored tasks for this report. Each sub-column corresponds to a specific production technician that has logged hours on this project. The resulting grid lists the total actual effort each technician has worked on each tile for specific tasks. Summary statistics for each technician, each task and each tile are included. For convenience this particular report has been automatically filtered to just those tiles that have actually been worked on so far. Metrics can be immediately extracted from the report and will update in real time as work-in-progress continues. For example the average total effort per tile (editing and QA/QC) so far is 1:43 (one hour and forty-three minutes) and total effort on the project so far is 21:11 (twenty-one hours and eleven minutes). Of course whether that's good or bad depends on what the planned effort was, but if budgets have been set in GeoCue then variance against plan can also be reported via Project Administrator. The production manager can also see from this report that across the four editors working on this project, average editing time varies from 3 minutes (!) to 33 minutes per tile. Total effort per tile varies from just ten minutes to over six hours for one particularly problematic tile. A good production manager will use this information to go dig in to these outliers to see if there are problems that need addressing. They'll also use the information to help with work assignments and training plans across the technicians, perhaps having the more productive technicians mentoring the less productive. Keep in mind all of this valuable information is extracted directly from the GeoCue database and tracked as a by-product of managing the project in GeoCue; nobody has to fill-in spreadsheets or compile weekly progress reports across the team.

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Entities (Filtered) (Total: 40 of 82) (WIS Entities: 0)

Actual Effort	John steinbeck	marin road	Actual Effort	John steinbeck	marin road	Total Actual	Total AE widous	Total AE job	Total AE john	Total AE marin Road
02:59:11	00:00:00	00:00:00	03:13:21	00:00:00	00:00:00	06:12:33	02:59:11	00:00:00	00:00:00	03:13:21
02:41:37	00:00:00	00:00:00	03:13:21	00:00:00	00:00:00	05:54:58	02:41:37	00:00:00	00:00:00	03:13:21
01:45:36	00:00:00	00:00:00	03:13:21	00:00:00	00:00:00	04:58:57	01:42:41	00:00:00	00:00:00	03:16:16
01:10:37	00:00:00	00:00:00	03:13:21	00:00:00	00:00:00	04:23:59	01:10:24	00:00:00	00:00:00	03:13:35
02:53:43	00:00:00	00:00:00	03:13:21	00:00:00	00:00:00	04:07:30	00:00:00	00:00:00	00:00:00	04:07:30
00:36:19	00:00:00	00:00:00	03:13:21	00:00:00	00:00:00	03:13:00	00:00:00	00:00:00	00:00:00	03:13:00
02:50:44	00:00:00	00:00:00	02:50:44	00:00:00	00:00:00	02:50:59	00:00:00	00:00:00	00:00:00	02:50:59
02:41:35	00:00:00	00:00:00	02:41:35	00:00:00	00:00:00	02:41:35	00:00:00	00:00:00	00:00:00	02:41:35
02:38:33	00:00:00	00:00:00	02:38:33	00:00:00	00:00:00	02:38:33	00:00:00	00:00:00	00:00:00	02:38:33
02:20:36	00:00:00	00:00:00	02:20:36	00:00:00	00:00:00	02:20:36	00:00:00	00:00:00	00:00:00	02:20:36
02:19:36	00:00:00	00:00:00	02:19:36	00:00:00	00:00:00	02:19:36	00:00:00	00:00:00	00:00:00	02:19:36
00:30:02	00:00:00	00:00:00	00:30:02	00:00:00	00:00:00	01:40:44	00:00:00	00:00:00	00:00:00	02:10:46
00:30:30	00:00:00	00:00:00	01:24:48	00:00:00	00:00:00	00:02:33	02:03:03	00:00:00	00:00:00	00:00:00
01:19:29	00:00:00	00:00:00	01:19:29	00:00:00	00:00:00	00:33:10	01:52:39	00:00:00	00:00:00	01:52:39
00:06:45	00:00:00	00:00:00	00:06:45	00:00:00	00:00:00	01:45:18	01:52:03	00:00:00	00:00:00	01:52:03
01:46:17	00:00:00	00:00:00	01:45:53	00:00:00	00:00:25	01:46:42	00:00:00	00:00:00	00:00:00	00:00:49
01:45:52	00:00:00	00:00:00	01:45:52	00:00:00	00:00:00	01:45:52	00:00:00	00:00:00	00:00:00	01:45:52
00:30:15	00:00:00	00:00:00	00:30:15	00:00:00	00:00:00	00:32:55	01:29:11	00:00:00	00:00:00	00:36:06
01:16:55	00:00:00	00:00:00	01:16:55	00:00:00	00:00:00	01:16:55	00:00:00	00:00:00	00:00:00	01:16:55
01:13:49	00:00:00	00:00:00	01:08:54	00:00:00	00:00:00	00:00:00	01:13:49	00:00:00	00:00:00	00:04:55
01:06:49	00:00:00	00:00:46	01:01:02	00:00:00	00:00:38	00:03:38	01:10:24	00:00:00	00:05:48	00:04:37
00:00:38	00:00:00	00:00:00	00:00:38	00:00:00	00:00:00	00:51:14	00:51:52	00:00:00	00:00:00	00:51:52
00:00:38	00:00:00	00:00:00	00:00:38	00:00:00	00:00:00	00:51:14	00:51:52	00:00:00	00:00:00	00:51:52
00:00:46	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:46:13	00:00:00	00:00:00	00:00:00	00:46:13
00:45:11	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:45:11	00:00:00	00:00:00	00:00:00	00:00:00
00:45:11	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:45:11	00:00:00	00:00:00	00:00:00	00:00:00
00:09:17	00:00:00	00:00:00	00:09:17	00:00:00	00:00:00	00:32:55	00:42:13	00:00:00	00:00:00	00:42:13
00:30:40	00:00:00	00:00:00	00:30:40	00:00:00	00:00:00	00:40:35	00:41:15	00:00:00	00:00:00	00:41:15
00:30:40	00:00:00	00:00:00	00:30:40	00:00:00	00:00:00	00:40:35	00:41:15	00:00:00	00:00:00	00:41:15
00:03:40	00:00:00	00:00:00	00:03:40	00:00:00	00:00:00	00:33:10	00:36:50	00:00:00	00:00:00	00:36:50
00:32:37	00:00:00	00:32:37	00:00:00	00:00:00	00:00:00	00:03:48	00:36:26	00:00:00	00:32:37	00:03:49
00:35:44	00:00:00	00:00:00	00:33:01	00:02:43	00:00:00	00:35:44	00:35:44	00:00:00	00:00:00	00:02:43
00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:32:55	00:32:55	00:00:00	00:00:00	00:32:55
00:27:53	00:00:00	00:00:00	00:27:53	00:00:00	00:00:00	00:27:53	00:27:53	00:00:00	00:00:00	00:27:53
00:02:10	00:00:00	00:00:00	00:02:10	00:00:00	00:00:00	00:23:07	00:25:17	00:00:00	00:00:00	00:25:17
00:24:27	00:00:00	00:00:00	00:24:27	00:00:00	00:00:00	00:00:00	00:24:27	00:00:00	00:00:00	00:24:27
00:12:16	00:03:37	00:00:00	00:08:39	00:00:00	00:00:00	00:11:45	00:24:01	00:03:37	00:00:00	00:20:34
00:00:40	00:00:00	00:00:00	00:00:40	00:00:00	00:00:00	00:23:07	00:23:47	00:00:00	00:00:00	00:23:47
00:11:14	00:00:00	00:00:00	00:11:14	00:00:00	00:00:00	00:11:14	00:00:00	00:00:00	00:00:00	00:11:14
00:04:11	00:00:00	00:00:00	00:04:11	00:00:00	00:00:00	00:04:11	00:10:25	00:00:00	00:00:00	00:10:25

Project Administrator Summary

Count = 40	Count = 40	Count = 40	Count = 40	Count = 40	Count = 40	Count = 40	Count = 40	Count = 40	Count = 40	Count = 40	Count = 40	Count = 40	Count = 40	Count = 40
Avg = 01:02:55	Avg = 00:14:55	Avg = 00:03:13	Avg = 00:11:26	Avg = 00:33:17	Avg = 00:40:51	Avg = 00:00:00	Avg = 00:00:00	Avg = 00:40:51	Avg = 00:14:59	Avg = 00:03:13	Avg = 00:11:26	Avg = 01:02:55	Avg = 01:14:08	Avg = 01:29:59
Sum = 17:57:10	Sum = 09:59:30	Sum = 02:08:45	Sum = 07:37:26	Sum = 22:11:29	Sum = 03:14:27	Sum = 00:00:00	Sum = 00:00:00	Sum = 03:14:27	Sum = 09:59:30	Sum = 02:08:45	Sum = 07:37:26	Sum = 01:02:55	Sum = 01:29:59	Sum = 01:29:59
Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00	Min = 00:00:00
Max = 02:59:11	Max = 02:59:11	Max = 00:45:11	Max = 02:59:30	Max = 02:53:43	Max = 03:13:21	Max = 00:00:00	Max = 00:00:00	Max = 03:13:21	Max = 06:12:33	Max = 02:59:11	Max = 00:45:11	Max = 02:59:30	Max = 04:07:30	Max = 04:07:30

Figure 1 - Actual Effort report from GeoCue (Click graphic for larger view.)

This above is just one example of how project metrics can be reported from GeoCue. Reports are easily customizable to address each production manager's desired "view" of their projects. In combination with GeoCue's Project Dashboard and email status alert system, tracking productivity and taking appropriate actions to keep on plan, under budget and on schedule becomes much easier. It is all part of the old adage if you aren't measuring it, you aren't managing it. If you would like to see more examples of project metric reporting in GeoCue or would like to discuss how your organization could benefit from GeoCue workflow management, please don't hesitate to contact us.

For more information, contact Martin Flood at mflood@geocue.com.