



Accelerating Manufacturing & Quality Engineering

5 Quality Solutions for your Inspection Challenges

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QUALITY SOLUTION #1

Soar Through Your FAI Audit

You know the scenario all too well. All productivity comes to a halt as your customer schedules an audit. You work around the clock assembling the information your auditor is likely to request-- past First Article Inspections, Internal Inspection Sheets, Certificates of Compliance (current, of course), calibration records, and the list goes on and on. And you assume you were prepared, until the auditor asks for a document you cannot find. As you riffle through the folders trying to find that one heat treat certificate, that seems elusive, you throw your hands up, "Where is it??"

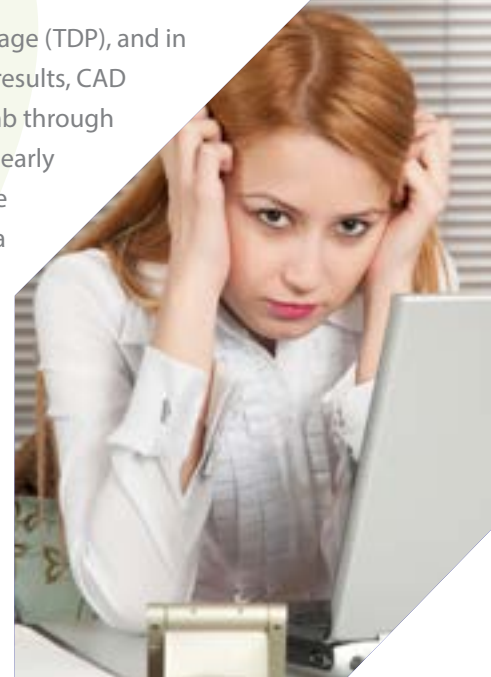
Then another problem occurs: Your auditor leaves your office with the irritated remark, "Call me when you are ready." Red-faced, you later find that document stuffed between a couple other pages, but it's too late. You reschedule later and go through the same scenario over, hoping another document is not wedged where it cannot be reviewed at a moment's notice. Repeating the same process over and over again for each audit, hoping for new results, isn't progress, it's crazy.

Isn't it time for you to solve your auditor's demands without adding stress to yourself and your overwhelmed staff? Don't you wish that in one place, you could make two clicks and show your auditor all the salient documents in one easy- to-view location? Here is a quality solution you can count on!

Try software designed with this scenario in mind to stop the crazy. With DISCUS you can access the FAI, the certificates, the images of the part marking, the actual part photo, and any specifications in one easy-to-find location. Plus this data can be zipped down and archived on your server or ERP system for easy and accurate long term storage. This will save you and your auditor a great deal of time and that is priceless.

Now when your auditor drops by for a visit, simply launch a DISCUS Technical Data Package (TDP), and in seconds, your auditor can review all the information of that part, plus all the CMM data results, CAD modeling information and much more in record time. You don't have to frantically thumb through folders and pages in a vain effort to locate a document. Instead of leaving your office, clearly frustrated, your auditor easily reviews the data and then has a real dialogue about future plans, your methodology and of course future business. By being able to access the data in one location, at any time, you can give your customer confidence in your processes and your ability to meet the needs of industry. Indeed, nothing breeds confidence like competence and with DISCUS this competence is built into each TDP function. Download DISCUS today to meet the demands of your audits tomorrow. Save time, be more productive and earn more business with DISCUS. That's a quality solution that will work for you every time.

Contact sales@DISCUSsoftware.com to learn more.



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QUALITY SOLUTION #2

Identify the Changes Between Drawing Revisions

Winston Churchill said, "To improve is to change; to be perfect is to change often." While Churchill was not talking about revision changes with drawings, he might as well have been. Drawing revisions continually improve the overall quality and integrity of the product, as the intended goal, but for suppliers, the constant changing of revisions can be a production nightmare.

Certainly the drawing's revision block provides suppliers with a guide to the overall changes in the drawings. However, most would agree that the differences between the drawing can be subtle, hidden, and can cause interpretation errors. The differences are often not indicated on the unreliable revision block. So it's up to you, the supplier, to determine the changes between the revisions and adjust.

Trying to find the differences between two very similar drawings is an exhaustive and time consuming activity, and the human eye is likely to miss important changes. The revision process is not only time-consuming, but can delay work and lead to loss of revenue. Any failure to recognize the differences further exacerbates the cost of doing business, and can cause rework, scrap and rejections. Dealing with revisions is an ongoing problem that can affect your future business.

What is needed is software that will readily compare the differences between two drawings in about two clicks. The drawing changes are noted in red, and can be printed out so the quality engineer, without ambiguity, easily identifies the differences between the drawings, changes that evade the human eye. Now the inspector can respond to the changes in a matter of minutes, not hours. Using the DISCUS Comparison feature, the differences are indicated in red or any color you select for the new revision, leaving the unchanged areas in light gray. Even a novice can recognize the differences!

DISCUS brings to your quality team a means to deal with revisions that will eliminate rework, rejections and frustration.

- >> **In a matter of seconds, quickly and precisely ascertain the differences between the revisions.**
- >> **Speed up production and FAI reporting by hours and days**
- >> **Since all changes are noted, your team will have a higher accuracy of reporting**
- >> **Ensure your customer that your revision process is state of the art, thus earning more business**
- >> **Eliminate rework, scrap and rejections.**

With DISCUS you can reallocate your personnel to less menial tasks than examining each drawing. Finally your team can retire the magnifying glass! Indeed, "to improve is to change" so isn't it time to make a change in the way you handle revisions? Contact sales@discussoftware.com to realize a quality solution for each and every revision.

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QUALITY SOLUTION #3

Avoid the Low Rate of Software Adoption and the High Cost of Shelfware

Purchasing software can be analogous to hiring the right employee. After a trial period and evaluation, the decision is made to bring the software or new talent in house. Then what? What if the implementation strategy and a plan for adoption of the new system are not considered? If a company does not have a plan, then the software can be left unused and the investment is for naught. Of course most companies, when introducing new employees to the workplace, provide orientation, training and a place to hang their hats. Yet few companies plan well for a successful software introduction and that can lead to an adoption issue.

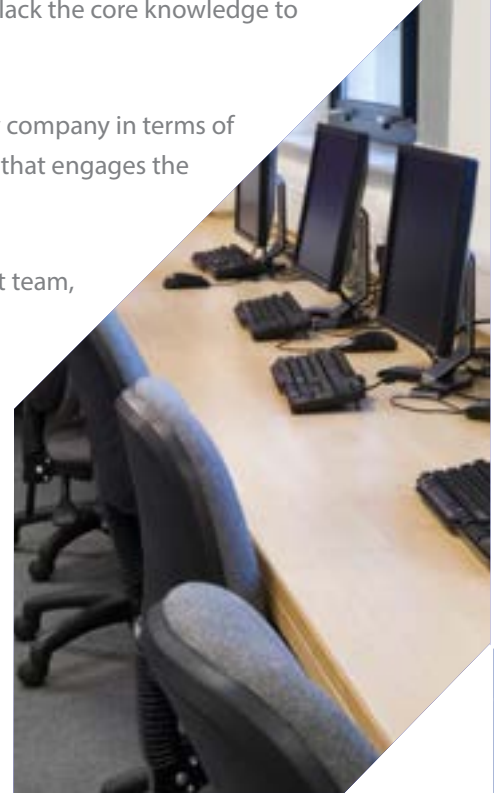
This is not a unique problem. In fact, nation-wide, the number of software licenses that are unused is at a record high: Up to 62% of software that companies buy is unused or under-utilized. Once the software is purchased, the purchasing company often feels abandoned by the vendor. And without an adoption strategy as part of the implementation plan, new customers leave the software on the shelf, so to speak. In fact, the term for unused software, Shelfware, is a real problem for any quality department, which looked for a software solution to support their quality initiatives. But if no one uses the solution, then the ROI cannot be appreciated. And the decision makers may feel they made a wrong purchasing decision, all of which is costly.

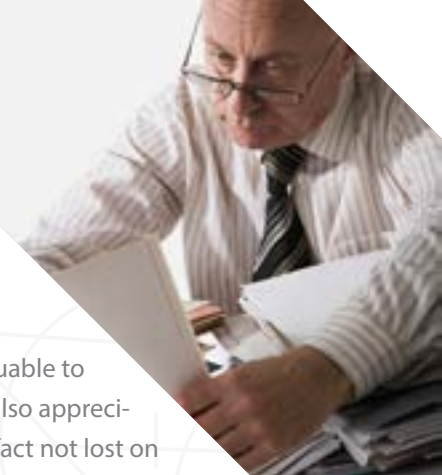
“Shelfware rate for the top ten online analytical processing software packages averages 39 percent—and runs as high as 62 percent.” -Gartner, Inc.

The reasons for not adopting a software solution can be varied and subjective. Employees are sometimes reluctant to adopt a new technology and can feel threatened by the software's ability to reduce their workload and they are fearful, as a result, of losing their positions. Personnel also may be technology shy without the necessary software skills. And quite simply, some company veterans may be reluctant to try something new. But this is not entirely their fault. In fact, a software company can be complicit in this adoption nightmare: If the vendor simply throws the products “over the wall” without a post-sales support in place, then potential users probably lack the core knowledge to effectively use the software.

Adoption is not only critical for customer satisfaction, but is also a valuable asset for any company in terms of future sales and referrals. The best software companies have a robust post-sale strategy that engages the decision makers and includes the affected employees.

DISCUS Software has a reputation for this vital post-sale support-- from a skilled support team, online videos, free training to an experienced customer success team. These resources ensure that the software is installed and used and the employees are onboard. In addition to offering training for purchased licenses, DISCUS provides complimentary online training every month for all customers and has done so from the onset. As a matter of fact, the adoption rate of DISCUS is much higher than the national average as the support and training team work with the purchaser to ensure the employees are trained, their fears mitigated. By offering tutorials and online support, chat and blogs, new users can access assistance 24/7 at their own pace with mentoring assistance.





By supporting a customer's adoption strategy, the DISCUS support staff guides new users to become more confident and competent while learning skills that make them even more valuable to their employer. Not only are companies realizing immediate ROI from the software, but are also appreciating a skilled staff in software technology. This is a quality solution in a win/win scenario, a fact not lost on most companies. From the first download, through evaluation and beyond, DISCUS support staff will train prior to the purchase and facilitate users' understanding of the features and functions for a success-driven implementation.

"The DISCUS support team has always responded quickly to requests and the on-line training webinars have been very helpful. Even as long-term users, we normally attend at least one of the training courses after a major upgrade to ensure we are getting the maximum use of new features. The support team has been granting us access to evaluate both the DISCUS 3D and DISCUS CMM add-ons as well before we purchase them to ensure they fulfill our needs."
- Kris Watson, Quality Engineer, Weaver Manufacturing

DISCUS software has a plan to help companies with their software adoption from the onset of the sale, through the purchase and beyond. Eliminate the problem of Shelfware and realize immediate ROI for a quality solution day in and day out.

Contact sales@DISCUSsoftware.com to learn more.



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QUALITY SOLUTION #4

Expedite Customer Approval of FAIs

A complete First Article Inspection (FAI) prior to shipment is a reality that most suppliers understand and they move heaven and earth to comply with their customer's demands. But after completing the lengthy documentation and submitting this FAI package to the customer, the supplier often cannot ship the parts: The FAI is held up without the necessary customer approval.

Quality managers often monitor the FAI activity very closely on the production floor to ensure they are capturing the multitude of requirements, but the reality is this: extensive gaps between submission and customer acceptance frustrates this harried quality manager and impacts delivery and invoicing. The ramifications for slow approval are sorely problematic and expensive; parts are not shipped and are stockpiled, thus affecting cash flow, and ultimately the company's bottom line and future planning. And submitting a simple Delta FAI often is not a remedy. The full FAI assembly could fail, impacting the approval of the remaining components—this becomes an avalanche of non-shippable parts.

One supplier complained, "Currently we have about 200 assemblies that have been submitted without customer approval and I have hounded everyone at the customer site to get these approved to no avail. What recourse does a supplier have when the customer is not accepting the FAIs?"

Some suppliers take matters into their own hands and bend the rules to get the FAI approved, but this action can be problematic and cause more headaches and legal problems down the road.

Let's step back a moment to take closer look-- from the customer's point of view. Is the documentation fully complete, legible and clear? Are items on the drawing not accounted for? Is the ballooned print hard to follow and not in a logical order? Is all the information in one localized place so the customer can easily access the data, from specifications to certs to part marking? If a customer has to riffle through messy documentation that takes hours to review, the approval process can be held up. The customer may also be frustrated and simply throw his hands in the air, "Too hard!" So this customer reviews another supplier's FAI that is more organized and approves this before the other problematic FAI. That FAI could fall further behind in the queue, thus delaying approval even longer.

As a quality solution to this problem, a supplier can depend on a software solution to organize and fully comply with the customer's needs. Creating the FAI report with the customer's special AS9102 form that they know and understand may be a simple solution. A method to catch any missing characteristics and then insert them logically into the print can help facilitate a review. Having all the critical information in one Technical Data Package (TDP) gives a reviewer immediate access to the information in one centralized location in a matter of clicks. Last but not least, a professionally prepared ballooned print with appropriate comments and markups can guide a reviewer through the FAI process. All of this can expedite approval and can be done with easy-to-use software.





While there may be other issues at the customer's site that affects approvals, why not do everything in your power for the most professional and complete FAI package? The answer to the question, "What recourse does a supplier have?" can be simple. Acquire an FAI software to help organize the data and professionally submit the FAI package, so instead of hounding the customer for acceptance, provide a pro-active solution to speed up the approval process. This is a quality solution that will help you realize immediate ROI.

One supplier to a major OEM solved his approval woes with such a software solution:

"DISCUS has considerably reduced the time we spend on FAIR compilation and we were able to hit target dates for FAIR delivery with ease. DISCUS gives the user the confidence that the FAIR submitted to the customer is Right First Time and we are getting customer approvals immediately. This is a huge change." - Tim Marshall, Quality Team Manager, Esterline Darchem Engineering Ltd

Learn how to speed up customer approvals, contact DISCUS today. Approvals today, ship tomorrow and invoice the next! Get it right the first time with DISCUS.

Contact sales@DISCUSsoftware.com to learn more.



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QUALITY SOLUTION #5

Not Maximizing CMM Output Data

Even though CMMs are widely used and have become important to the quality operations of many companies, they remain complex and expensive. The value of this data collection is invaluable yet the cost of these can be in the tens of thousands, hardly a minor investment. Plus the cost to fully train the CMM programmer and produce the desired output can be an added drain to the company's budget and resources. In the best case scenario, CMMs provide a seamless and efficient way to measure parts and provide the quality team with fast, accurate measurement data.

Yet when it is time to create the First Article Inspection (FAI) or similar inspection report, many progressive companies with their high-tech CMM machines are not maximizing the digital nature of the CMM output. After running the CMM, many quality personnel will manually enter the data into the inspection report and the chance of transcription errors rises immediately. The gains of the fast, accurate CMM data are virtually compromised in this situation.

Apparently, these companies are locked in a classic "Catch 22" situation: using the CMM to glean the measurement data for maximum precision, yet relying on manual entry to replicate the data in the inspection reports. As we know, humans make mistakes: misinterpretation of data, not saving work and mistyping in the wrong fields are all common errors seen in the data entry fields for most inspection reports. Ironically, a CMM program was supposed to eliminate this problem.

Suppliers can maximize their CMM output with software developed to read and import the data, digitally right into the inspection report. Regardless of the CMM model, this software can utilize the data and map the results into the appropriate characteristic for a complete, unambiguous report. This FAI software closes the loop for many companies who are seeking to maximize their CMM output and eliminate costly transcription errors. This is a quality solution you cannot afford to ignore.

In fact, FAI software, DISCUS, has the ability to use the CMM report to generate the FAI report and balloon the associated drawing. This method has gained some strong advocates and eliminates redundancy of ballooning the print and then running the CMM. These two, often uncoordinated efforts, can be done in one seamless step, and has revolutionized the way many suppliers create the report. These suppliers are engaging the CMM programmer into the inspection reporting process from the onset and saving hours, if not days of time.

One supplier immediately found that DISCUS was an ideal solution by leveraging the high precision and accuracy of their CMM with a software that easily completes the inspection report with this data:

We dramatically reduced the amount of time spent transferring CMM Report results, onto the inspection reports as well as the FAI reports. DISCUS CMM is a great tool for this task, with the new CSV format in the DISCUS CMM module it will become less time consuming to achieve this goal." - Alejandra Ortega, CMM Programmer, Magellan Aerospace - Ellanef Mfg. Corp.

To learn how your company can maximize your CMM capability and create accurate and fast inspection reports, contact sales@discussoftware.com to learn more.



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ABOUT DISCUS SOFTWARE

The DISCUS Software Company, was founded in 2006 in Columbus, Ohio.

The DISCUS Software Company specializes in the development of software tools for accelerating manufacturing and quality engineering. The DISCUS software tools are productivity solutions that dramatically reduce the time it takes to complete first article inspection, in-process inspection planning, process planning, and producibility analysis. DISCUS is compatible with many of the requirements used by companies such as Boeing, Ford, GE, Lockheed, and Siemens.

The challenges shared above and the associated prescriptive solutions come from our many years of experience working with quality engineers in manufacturing organizations. Pursuing software solutions to these and other challenges is our purpose as an organization. We hope that you gain at least one idea or tip on how to address your challenges. If not, contact us and challenge us directly with your problem.

Contact Us Today

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