



SmartGD&T™ Encoding Services

Live Remote or On-Site GD&T Support

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What is GD&T?: CAD (Computer Aided Design), and GD&T (Geometric Dimensioning & Tolerancing) are the two equally important halves of the science of machine part geometry specification. CAD serves to specify the perfect, imaginary geometry of objects, whereas GD&T serves to research and document their function, refine their functionality, guarantee their assemblability, and turn manufacturing and inspection into scientifically controllable processes. CAD without GD&T is “bad”, because it represents just half the story, and the lack of reliable GD&T is demonstrably responsible for bumpy, new product ramp up cycles, unnecessarily costly manufacturing processes, and questionable inspection results based on tribal understandings rather than rigorous specifications. In short, GD&T is the science of “Imperfect Geometry Management”, and consists of the following five components:

Concepts / Tools / Rules / Processes / Best Practices

How to Make GD&T Work: Corporate implementation success is critically dependent on top management support, and begins with broad based training to ensure everyone grasps the power and benefits of GD&T. Although GD&T expertise in engineering, manufacturing and inspection are equally important, the most critical group is engineering, where GD&T code is generated, and where bad GD&T causes more problems than no GD&T. Due to its sporadic use in engineering, however, building and maintaining expertise is difficult. As a result, long term success can only be achieved by building and maintaining an in-house “**Smart GD&T™** Advisor” team or by getting occasional support from an external, professional resource.

External Support Resources: One of the most efficient and reliable ways to make GD&T work either in the near term if a GD&T Advisor Team is planned, or over the long haul if resources do not permit formation of such a team, is to engage the occasional services of an external support team. Multi Metrics’ live remote or on-site “**Smart GD&T Encoding & Decoding**” services are just such a solution. After signing a non-disclosure agreement (NDA), a Multi Metrics **SmartGD&T** expert can be invited to join a focused design review meeting – either remotely or on-site - to vastly accelerate the GD&T encoding, tolerance stack-up, manufacturability and inspection analysis processes, and provide real time internal expertise enhancement as well. In addition to real-time encoding support, SmartGD&T services also include assistance developing corporate GD&T encoding schemes for part families, which include documentation of the basis for selecting specific tools and tolerance values, as well as tolerance stack-up considerations and useful manufacturing and inspection insights.

SmartGD&T Encoding Services Implementation: Services are purchased in hourly increments and priced by volume. The standard remote and on-site fees apply to purchase orders for ten hours or less. Discounts are offered on pre-paid volume orders for hours in excess of ten and are based on a fee schedule available on request. Hourly activity reports are submitted at the end of each session. Services may be available on demand, but are best scheduled with 24 hour notice. Remote, web based encoding sessions are billed by the minute. On-site encoding sessions are billed by the hour and are subject to round trip travel time fees and per diem and air travel expenses if applicable.

Free Trial: In order to assess the benefits of SmartGD&T Encoding services, please take advantage of our free 2 hour trial session. Contact: bill@multimetrics.com or call us as 650-328-0200.