

# Justification for TFG4000

Today, the magnitude of the investment for computer and network systems continues to decrease. Analysts have observed that the cost of processing a transaction on a computer is decreasing, roughly by 90%, every four years. Certainly, this cost will continue to decrease in the future.

Some of the most dramatic improvements have been in the area of programming systems (so-called "software") supporting real-time data processing and databases. The low cost, along with the comprehensive capability of such systems in solving complex problems, brings real-time processing within the reach of most companies using today's computers.

Despite these improvements, the investment requires reviewing. One of the objectives of this paper is to indicate how this investment can be justified.

While most results of the TFG4000 system appear to be intangible, many specific benefits derived from the results are very tangible just difficult to measure in advance. The major benefits from applying the TFG4000 principles are:

- Reductions in inventories of finished goods, components, raw materials, tools, etc
- A significant improvement in customer service processes with fewer late orders, realistic confirmation of delivery dates, faster delivery, shorter lead times, faster response to customer inquiry, etc., all will contribute to a better competitive position
- Utilization of your production facilities is improved. A slight increase in work force and machine utilization can generate very large savings
- Reductions and utilization improvements of your work-in-process inventory will result in shorter manufacturing lead times and less shop congestion
- Higher productivity and quality through direct computer control of production activities
- Better utilization of services directly supporting production, such as maintenance, tools, materials handling, and stores operations. Small decreases in these costs will contribute significantly to profits
- The cost for paperwork creation and control are reduced dramatically
- More realistic planning of resource capacity levels, which will reduce overtime costs as well as idle time
- Reductions in material shortages and in most of the resultant expediting
- More accurate assessment of true product costs and determination of those factors causing cost trends
- A reduction in the time lost because of production meetings to determine order progress and priority. The order priority system can easily be adjusted to meet changing needs, and the system helps ensure that the change is applied consistently

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- A reduction in purchased material costs because buyers have more time to spend in negotiating lower prices or seeking more reliable sources of supply
- A significant reduction in the amount of systems effort spent on maintaining and changing old computer programs when new systems are implemented
- The elimination of redundant system data with everyone is basing decisions on the same data
- Better utilization of a manager's time as they can see just the exception notices they have specifically designated as important, although further details are available immediately on request
- More awareness of planning risks, more accurate forecasts, and more current information, resulting in better decisions
- Reduction in a number of types of fluctuation through reduction in information processing delay and the smaller the fluctuations, the smaller the buffers needed to absorb them

Do not base justification for TFG4000 on one application area. The additional central computer costs and the terminal and network costs may be difficult to justify when only one application area is considered. However, after the commitment to real-time processing, the initial expense incurred, and experience gained, the extension of real-time processing into additional areas requires much less investment.