Task identification

Task Identification Task identification is a discipline and a methodology that encompasses a whole range of disciplines and endeavors. The main aim of task identification and its related task analysis process is to come out with an output or result. “ Task analysis is a fundamental methodology in the assessment and reduction of human error. A wide variety of different task analysis methods exist. The term Task Analysis (TA) can be applied very broadly to encompass a wide variety of human factors techniques. Nearly all task analysis techniques provide, as a minimum, a description of the observable aspects of operator behavior at various levels of detail, together with some indications of the structure of the task. (Embrey, 2000)” Of the several known methods in task identification, the process or steps may include critical incident technique and linear sequencing.

In the critical incident technique, the key factor is the gathering of any and all available facts or incidents and analyzing what actually occurred as a result. Based on the analysis and interpretation of the data into information, assessments and inferences are made on how to use the findings to improve on future performance or output. Thus the basic step in critical incident technique can be summarized as: “ Step 1: Gathering facts; Step 2: Content analysis; and Step 3: Creating feedback. (EMMUS, 1999)” In information technology (IT), the critical incident technique (CIT) is one of the methodologies in software and applications development. “ The CIT is an open-ended retrospective method of finding out what are the critical features of the software being evaluated. It is a method for getting a subjective report while minimizing interference from stereotypical reactions or received opinions. A critical incident is defined as one which had an important effect on the final outcome. Critical incidents can only be recognized

retrospectively. CIT analysis uses a method known as Content Analysis in order to summarize the experiences of many users or many experiences of the same user. (UsabilityNet, 2006)”

When linear sequencing is used in task identification, the method describes putting in lined or straight order a sequence or series of events. It follows at times a hierarchical or incremental level of presentation or reasoning. “ Reasoning about events commonly requires assembling the events into a sequence or order of events such that a temporal pattern of events becomes distinguishable and more understandable. For many reasoning tasks involving events, users require a simple, total order of events, where for every pair of events. (Hornsby and Hall, 2004)” Thus, by using linear sequencing, the process gives a more understandable output in the form of a step-by-step instruction that endeavors to proceed with the next step only after initiating the step prior. This varies immensely from the multi-mode approach wherein one step can jump to another without completing a linear sequence or order. A more concrete example of linear sequencing is presented by Hornsby and Hall in Generating Linear Orders of Text-Based Events (2004):

To generate linear orders of events, the set of 13 possible event interval relations is reduced to a set comprising only before or equal relations. Given two event intervals, A and B, for example, if the start point of A is before or equal to the start point of B and the end point of A is before the end point of B, then A is before B in the linear order. This holds for the cases of: A before B, A meets B, A overlaps B, and A starts B. Event A is also before B in cases where the start point of B is after the start point of A, and the end point of B is before or equal to the end point of A, as in the occurrence of A contains B

and A ended by B.

Where the start point of A is after the start point of B and the end point of A is before or equal to the end point of B, then B is before A in the linear order. This holds for A during B and A ends B, as well as for cases, A after B, A met by B, A overlapped by B, and A started by B, where the start point of B is before or equal to the start point of A, and the end point of B is before the end point of A.

Despite what technique, methodology, step or procedure used, the end result of task identification is simply getting results based on the process it underwent. It identifies the result based on the disciplined approach placed on the task at hand and documents how the output came about and the measures used to control the outcome.

References:

Embrey, David. (2000) Task analysis techniques. Human Reliability Associates Ltd.

European MultiMedia Usability Services (1999). Critical incident technique. Accessed: January 20, 2007 [Online] Available at: Hornsby, K. & Hall, S. (2004). Generating linear orders of text-based events. Accessed: January 20, 2007 [Online] Available at: UsabilityNet (2006). Critical incident technique analysis. Accessed: January 20, 2007 [Online] Available at: