

MatrixMiner: Tutorial for the User Study

We want to evaluate Product Comparison Matrices (PCMs) extracted from informal product descriptions (textual overviews). The tool offers ways to visualize the PCM with a traceability with the original product overview and the specification. For each cell value, the feature name and the cell value are highlighted in the text, and at the same time the corresponding specification is displayed.

hard drive ▼

500gb
500gb
1tb
1tb
500gb
500gb
1tb
1tb
1tb
1tb

Evaluation

Feature:

☒ Correct ☐ Incorrect ☐ Incomplete ☐ Irrelevant **1**

Correct value: _____

PCM VS Specification:

☒ PCM = Spec ☐ PCM < Spec ☐ PCM > Spec ☐ Incomparable **2**

Product 1921062:

Value:

☒ Correct ☐ Incorrect ☐ Incomplete ☐ Missing **1**

PCM VS Specification:

☒ PCM = Spec ☐ PCM < Spec ☐ PCM > Spec ☐ Incomparable **2**

Comments

Enter your comments here **3**

Textual overview

Intel® Pentium® mobile processor N3530
Ultra-low-voltage platform. Quad-core processing with Burst Performance everyday tasks.

4GB system memory for basic multitasking
Adequate high-bandwidth RAM to smoothly run multiple applications

500GB hard drive for serviceable file storage space
Holds your growing collection of digital photos, music and videos. 5400 rp

Specification

Feature	Value
Hard Drive Capacity	500 gigabytes
Hard Drive RPM	5400 revolutions per minute
Hard Drive Type	SATA

Figure 1. Overview of the environment during PCMs evaluation.

We display one column at a time and you have to attribute scores for the feature and cell values. Please follow these instructions:

1. You have to validate or not features and cell values in the PCMs against the information contained **in the original product overview** (at the left) and **not the specification** (see figure 1 - **1**)
 - look at each feature in the PCM and state whether the feature is : correct, incorrect*, incomplete* or irrelevant.
 - look at each cell value in the PCM and state whether the expected cell value is correct, incorrect*, incomplete* or missing*.

*We recommend you to propose a correction (see example in figure 2).

To help you during this task, we provide you with an example of PCM and the corresponding evaluation of features and cell values under different scenarios (see figures 4 and 5 in the last page).

2. Evaluate the overlap between PCM and the specification.

Specify whether the PCM contains more/less refined information (features and cell values) than in the specification (see figure 1 - 2).

- PCM = Spec: both of the PCM and the specification contain the same information. See example in figure 2.
- PCM > Spec: the PCM contains more information comparing to the specification. See example in figure 3.
- PCM < Spec: the PCM contains less information comparing to the specification.
- incomparable: the information in the PCM and the specification are incomparable.

3. You can add a comment at the end of the evaluation of each column (see figure 1 - 3)

ghz

1.7

2.4

2.2

2.0

2.2

1.9

2.4

2.1

2.2

2.4

1/10

Evaluation

Feature:

☐ Correct
 ☒ Incorrect
 ☐ Incomplete
 ☐ Irrelevant

Correct value:

PCM VS Specification:

☒ PCM = Spec
 ☐ PCM < Spec
 ☐ PCM > Spec
 ☐ Incomparable

Product 1921062:

Value:

☒ Correct
 ☐ Incorrect
 ☐ Incomplete
 ☐ Missing

PCM VS Specification:

☒ PCM = Spec
 ☐ PCM < Spec
 ☐ PCM > Spec
 ☐ Incomparable

Comments

Enter your comments here

Textual overview

This HP Pavilion 17-f215dx laptop's 17.3" WLED-backlit display showcases visuals in realistic high-definition, and an HDMI output lets you connect to an external display. Built-in wireless networking makes it easy to access your favorite Web content. Learn more about the New Windows 5th Gen Intel® Core™ i5-5200U processor Features a 3MB L3 cache and 2.2GHz processor speed

Specification

Feature	Value
Processor Speed	2.2 gigahertz

Figure 2. Example of overlap between the PCM and the specification where PCM = Spec.

