

CLAIMS

1. Method (10) for generating a digital mockup (30) having the following steps:

- design (11) of a digital mockup (30) in three dimensions (X, Y, Z) using computer-aided design (CAD) software,

- integration (12) of said digital mockup (30) into a spatialization environment (31) for said digital mockup (30) allowing visualization of said digital mockup (30) from various angles of view,

- production (13) of said digital mockup (30) in order to obtain a semifinished product, and

- acquisition (14) of a plurality of pieces of production information (35-39), characterized in that it comprises the following steps, for each piece of production information:

- measurement (15) of a spatial position linked to said production information (35-39), and

- integration (16) of said production information (35-39) into the spatialization environment (31) on said digital mockup (30) at a position in said digital mockup (30) corresponding to the measured spatial position.

2. Method according to Claim 1, characterized in that the production information (35-39) corresponds to a measurement for a piece of said semifinished product.

3. Method according to Claim 1 or 2, characterized in that, the production information (35-39) corresponding to a shot of a portion of said semifinished product, the method has a step of adaptation of said shot to said digital mockup (30).

4. Method according to one of Claims 1 to 3, characterized in that, the production information (35-39) corresponding to a measurement in three dimensions (X, Y, Z) for a surface of said semifinished product, the method has a

step of matching and integration of said surface geared to said digital mockup (30).

5. Method according to one of Claims 1 to 4, characterized in that, the production information (35-39) corresponding to a plurality of annotations relating to one and the same spatial position, the method has a step of interleaving of the isolated annotations localized in one and the same area.

6. Method according to one of Claims 1 to 5, characterized in that, the spatialization environment (31) having a plurality of levels of details (50) associated with a plurality of masks, the method comprises a step involving masking some production information (35-39) or some information from said digital mockup (30) according to a selected level of detail (50).

7. Method according to one of Claims 1 to 6, characterized in that it has a step involving masking some production information (35-39) or some information from said digital mockup (30) according to the visualization position in said spatialization environment (31).

8. Method according to one of Claims 1 to 7, characterized in that, some production information (35-39) being associated with a date, the method has a step involving masking some production information (35-39) according to a selected date.

9. Method according to one of Claims 1 to 8, characterized in that it comprises the following steps:

- acquisition (20) of a plurality of pieces of maintenance information (41-45), and, for each piece of maintenance information (41-45) :
- measurement (21) of a spatial position linked to said maintenance information (41-45), and

- integration (22) of said maintenance information (41-45) into the spatialization environment (31) on said digital mockup (30) at a position in said digital mockup (30) corresponding to the measured spatial position.

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- design (11) of a digital mockup (30) in three dimensions (X, Y, Z) using computer-aided design (CAD) software,
- integration (12) of said digital mockup (30) into a spatialization environment (31) for said digital mockup (30) allowing visualization of said digital mockup (30) from various angles of view,
- production (13) of said digital mockup (30) in order to obtain a semifinished product,
- acquisition (14) of a plurality of pieces of production information (35-39), and
- acquisition (20) of a plurality of pieces of maintenance information (41-45), characterized in that it comprises the following steps, for each piece of production information:
 - measurement (15) of a spatial position linked to said production information (35-39), and
 - integration (16) of said production information (35-39) into the spatialization environment (31) on said digital mockup (30) at a position in said digital mockup (30) corresponding to the measured spatial position, and, for each piece of maintenance information (41-45):
 - measurement (21) of a spatial position linked to said maintenance information (41-45),
 - integration (22) of said maintenance information (41-45) into the spatialization environment (31) on said digital mockup (30) at a position in said digital mockup (30) corresponding to the measured spatial position, and
 - use of said digital mockup (30), thusly updated by said integration (22), as the basis for an analysis of necessity of maintenance.

2. Method according to Claim 1, characterized in that the production information (35-39) corresponds to a measurement for a piece of said semifinished product.

3. Method according to Claim 1 or 2, characterized in that, the production information (35-39) corresponding to a shot of a portion of said semifinished product, the method has a step of adaptation of said shot to said digital mockup (30).

4. Method according to one of Claims 1 to 3, characterized in that, the production information (35-39) corresponding to a measurement in three dimensions (X, Y, Z) for a surface of said semifinished product, the method has a step of matching and integration of said surface geared to said digital mockup (30).

5. Method according to one of Claims 1 to 4, characterized in that, the production information (35-39) corresponding to a plurality of annotations relating to one and the same spatial position, the method has a step of interleaving of the isolated annotations localized in one and the same area.

6. Method according to one of Claims 1 to 5, characterized in that, the spatialization environment (31) having a plurality of levels of details (50) associated with a plurality of masks, the method comprises a step involving masking some production information (35-39) or some information from said digital mockup (30) according to a selected level of detail (50).

7. Method according to one of Claims 1 to 6, characterized in that it has a step involving masking some production information (35-39) or some information from said digital mockup (30) according to the visualization position in said spatialization environment (31).

8. Method according to one of Claims 1 to 7, characterized in that, some production information (35-39) being associated with a

date, the method has a step involving masking some production information (35-39) according to a selected date.