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PAVE's Unified Vehicle Damage Codes (UVDC)

Use this guide to map PAVE damages to any third-party damage table easily.

We recently created and launched PAVE's Unified Vehicle Damage Codes (UVDC) to meet global vehicle appraisal standards and ensure consistency in how clients interpret and ingest inspection results. With PAVE's unified damage codes, which align with most third-party damage tables, clients can easily map to any OEM lease guideline, auction condition report, damage estimation or reconditioning tool, and more. By sharing these attributes in every damage line, PAVE has simplified the process of exchanging information about detected damages throughout a vehicle's wholesale and retail value chain by using one core damage table for labeling all inspection photos. Standardizing the interpretation of damages is critical, and PAVE's UVDC offers a straightforward solution.

How Does PAVE's Unified Vehicle Damage Codes Work?

PAVE's Unified Vehicle Damage Codes (UVDC) simplify the evaluation of a vehicle's exterior by assigning a unique code to each of the **255** exterior components, **54** damage types, and **12** severities listed in PAVE's Core Damage Table. These codes are included in the detected damage object in the JSON provided with PAVE's API results for every inspection. They can be reproduced and added to any third-party damage table by referencing the tables supplied by PAVE.

PAVE ensures consistency by using the same codes for labelling damages and provides easy filtration of similar previously labelled damages for training humans and machine learning.

Using PAVE's UVDC codes also simplifies the mapping required to align with other client and third-party damage tables, allowing clients to apply the same codes to their damages easily. This streamlines the process of exchanging information about detected damages between parties and systems throughout a vehicle's wholesale and retail value chain.

PAVE's process continues to label all recognized damages while only posting the related information back to the client using their unique damage descriptions. In addition, it uses the UVDC as a relation ID between tables. This ensures clients receive accurate and detailed inspection results that can be easily integrated into their existing systems and workflows.

PAVE's UVDC codes include these three IDs that are included in each damage line in the JSON detected damages object

- **component_id:** (int) the code for the damaged component
 - See the included table to get a list of all 255 exterior components and their related codes
- **damage_type_id:** (int) the ID for the general type of damage
 - See the included table to get a list of all 54 damage types and their related codes
- **severity_id:** (int) the ID for the severity of the damage
 - See the included table to get a list of all 12 severity types and their codes

Detected Damage Object (Where the UVDC codes can be found)

Here is a breakdown of the Detected Damage Object provided in the payload for each damage line in the JSON for a completed session. UVDC codes are highlighted in yellow.

- **detected_damages** (array): an array of objects containing information about each damage detected during the inspection.
 - **damage_group:** (string) the group to which the damaged component belongs (e.g. BODY, GLASS, PART, WHEEL, TIRE)

- **component:** (string) the specific component that has been damaged (e.g. DOOR_FRONT_LEFT, BUMPER_REAR)
- **damage_name:** (string) the name of the specific type of damage (e.g. SCRATCH, DENT)
- **component_label:** (string) a human-readable label for the damaged component (e.g. Front Left Door)
- **user_response:** (string or null) any user response related to the damaged component (e.g. if the user marked it as a concern)
- **source:** (string) the source of the inspection data (e.g. inspect, estimate)
- **label:** (string) a human-readable label for the damage (e.g. Has Minor Dent on Seam Line - Not Through Paint)
- **description:** (string) a detailed description of the damage
- **tolerance:** (string) the tolerance for the damage (e.g. Minor dent 1/8 - 1 inch but on seam line)
- **repair_method:** (string) the method that will be used to repair the damage (e.g. Refinish)
- **repair_type:** (string) the type of repair that will be performed (e.g. SMART Repair)
- **unit_measure:** (string) the unit of measure for the repair (e.g. Per Item)
- **estimate_category:** (string) the category of the estimate (e.g. Paint, Body, Mechanical)
- **labor_hrs:** (float) the number of labor hours required to repair the damage
- **labor_total:** (float) the total cost of labor required to repair the damage
- **parts_materials:** (float) the cost of any parts or materials required to repair the damage
- **total:** (float) the total cost of the repair
- **grade_score:** (int) the score given to the damage on the component (e.g. 0-5, with 0 being excellent and 5 being major impact on overall condition grading)
- **frame_grade_score:** (int) the score given to the frame of the vehicle (e.g. 0-5, with 0 being excellent and 5 being poor)

- **photo:** (object) an object containing the code and URL for the photo of the damage (listed below)
 - **uuid:** (string) a unique identifier for the damage
 - **cropped_url:** (string) the URL for the cropped photo of the damage
 - **cropped_code:** (string) the code for the cropped photo of the damage
- **estimate_included:** (bool) a boolean indicating whether the estimate for the repair is to be included in the total of all repairs.
- **estimate_tbd:** (bool) a boolean indicating whether the estimate for the repair is "to be determined" as set in the estimations in the client dashboard
- **material** (string): a label that indicates the type of material the component is made of (eg. Chrome, Textured Surface, Painted, Steel, Glass, Plastic, Rubber, Plastic Cover, Alloy Wheel, Steel Wheel) (Not available when using AutoGrade)
- **damage_type:** (string) the general type of damage (e.g. Mult Dents/Paint Damage)
- **damage_type_id:** (int) the ID for the general type of damage
- **aasc_damage_code:** (int) the code for the damage type in the AASC (Auto Auction Services Corp) standard
- **severity:** (string) the severity of the damage (e.g. Minor)
- **severity_id:** (int) the ID for the severity of the damage
- **aasc_severity_code:** (int) the code for the severity of the damage in the AASC standard
- **component_id:** (int) the code for the damaged component
- **aasc_item_code:** (int) the AASC code for the damaged component

TABLE 1.1: COMPONENT ID

ID	COMPONENT	ID	COMPONENT
1	Front Left Door Air Deflector	129	Right Cab Arch Panel

2	Front Right Door Air Deflector	130	Cab Arch Panel
3	Rear Left Door Air Deflector	131	Back Panel
4	Right Side Rear Door Air Deflector	132	Front Bed Panel
5	Sunroof Air Deflector	133	Cowl Panel
6	Antenna	134	Rear Left Quarter Panel
7	Front Badge	135	Rear Right Quarter Panel
8	Rear Badge	136	Rear Panel
9	Left Lower Bedside	137	Front Left Wheel Arch Panel
10	Right Lower Bedside	138	Front Right Wheel Arch Panel
11	Rear Bow	139	Rear Left Wheel Arch Panel
12	Box Liner	140	Rear Right Wheel Arch Panel
13	Bumper Valance	141	Front Parking Sensor
14	Front Bumper Cover	142	Rear Parking Sensor
15	Rear Bumper Cover	143	Center A-Pillar

16	Front Camera	144	Left A-Pillar
17	Rear Camera	145	Right A-Pillar
18	Convertible Soft Top Canvas	146	Left B-Pillar
19	Front Left Center Cap	147	Right B-Pillar
20	Front Right Center Cap	148	Left C-Pillar
21	Rear Left Center Cap	149	Right C-Pillar
22	Rear Right Center Cap	150	Rear Left Pillar Cover
23	Chase Rack/Roll Bars	151	Rear Right Pillar Cover
24	Convertible Top	152	Deck Lid Protector
25	Left Cab Corner	153	Left Deck Lid Protector
26	Right Cab Corner	154	Right Deck Lid Protector
27	Front Left Door	155	Left Quarter Panel
28	Front Right Door	156	Right Quarter Panel
29	Rear Left Door	157	Left Sliding Door Rail

30	Rear Right Door	158	Right Sliding Door Rail
31	Exhaust System	159	Rear Step
32	Exhaust Pipes/Tips	160	Front Reflector
33	Front Left Fender	161	Rear Reflector
34	Front Right Fender	162	Left Rocker Panel
35	Front Left Wheel Flare	163	Right Rocker Panel
36	Front Right Wheel Flare	164	Front Roof Line
37	Rear Left Wheel Flare	165	Left Roof Line
38	Rear Right Wheel Flare	166	Rear Roof Line
39	Gas Cap Cover	167	Right Roof Line
40	Left Fender Grill	168	Roof Panel
41	Right Fender Grill	169	Roof Rack
42	Front Grill	170	Adaptive Cruise Control Sensor
43	Left Side Grill	171	Front Left Lower Door Skin

44	Rear Grill	172	Front Right Lower Door Skin
45	Right Side Grill	173	Rear Left Lower Door Skin
46	Rear Scratch Guard	174	Rear Right Lower Door Skin
47	Front Left Door Handle	175	Rear Hatch Lower Skin
48	Front Right Door Handle	176	Rear Spoiler
49	Rear Left Door Handle	177	Left Side Step
50	Rear Right Door Handle	178	Right Side Step
51	Rear Hatch Door Handle	179	Left Bedside Storage
52	Left Bedside Storage Handle	180	Right Bedside Storage
53	Right Bedside Storage Handle	181	Sunroof
54	Tailgate Handle	182	Tailgate
55	Trunk Handle	183	Front Left Tire
56	Rear Hatch	184	Front Right Tire
57	Rear Left Hatch Door	185	Rear Mounted Tire

58	Rear Right Hatch Door	186	Rear Left Tire
59	Left Cargo Van Hinge	187	Rear Right Tire
60	Van Rear Hinge	188	Tonneau Cover
61	Right Cargo Van Hinge	189	Front Tow Hook
62	Front Hinge	190	Rear Tow Hook
63	Rear Hinge	191	Trailer Hitch
64	Hood	192	Left Bedside Trim
65	Left Daytime Running Light Housing	193	Right Bedside Trim
66	Right Daytime Running Light Housing	194	Front Left Fender Trim
67	Left Fog Light Housing	195	Front Right Fender Trim
68	Right Fog Light Housing	196	Rear Hatch Trim
69	Left Headlight Housing	197	Rear Left Quarter Trim
70	Right Headlight Housing	198	Rear Right Quarter Trim
71	Left Mirror Housing	199	Front Roofline Trim

72	Right Mirror Housing	200	Left Roofline Trim
73	Rear Left Bumper Corner Step	201	Rear Roofline Trim
74	Rear Right Bumper Corner Step	202	Right Roofline Trim
75	Left Tail Light Housing	203	Bottom Tailgate Trim
76	Right Tail Light Housing	204	Top Tailgate Trim
77	Entry Keypad	205	Tailgate Trim
78	Center Brake Light	206	Trunk Trim
79	Center Cab Light	207	Front Left Window Trim
80	Front Left Daytime Running Light	208	Front Right Window Trim
81	Front Right Daytime Running Light	209	Left Quarter Window Trim
82	Front Left Fog Light	210	Right Quarter Window Trim
83	Front Right Fog Light	211	Rear Left Window Trim
84	Left Headlight Washer	212	Rear Right Window Trim
85	Right Headlight Washer	213	Rear Window Trim

86	Front Left Head Light	214	Bottom Windshield Trim
87	Front Right Head Light	215	Left Windshield Trim
88	Front Left Marker Light	216	Right Windshield Trim
89	Front Right Marker Light	217	Top Windshield Trim
90	Rear Left Marker Light	218	Trunk
91	Rear Right Marker Light	219	Front Left Vent
92	Left Mirror Light	220	Front Right Vent
93	Right Mirror Light	221	Hood Vent
94	Center Rear Light	222	Rear Left Side Vent
95	Left Reverse Light	223	Rear Right Side Vent
96	Right Reverse Light	224	Center Rear Vent
97	Cab Roof Light	225	Trunk Vent
98	Left Taillight	226	Front Left Wheel
99	Center Tail Light	227	Front Right Wheel

100	Right Taillight	228	Rear Left Wheel
101	Left Mirror Glass	229	Rear Right Wheel
102	Right Mirror Glass	230	Front Left Door Window
103	Front Left Cab Corner Molding	231	Front Right Door Window
104	Right Side Front Cab Corner Molding	232	Rear Left Side Door Window
105	Rear Left Cab Corner Molding	233	Rear Right Side Door Window
106	Rear Right Cab Corner Molding	234	Rear Left Door Window
107	Front Left Door Body Side Molding	235	Rear Right Door Window
108	Front Right Door Body Side Molding	236	Front Left Quarter Window
109	Rear Left Door Body Side Molding	237	Front Right Quarter Window
110	Rear Right Door Body Side Molding	238	Rear Left Quarter Window
111	Front Left Fender Side Molding	239	Rear Right Quarter Window
112	Front Right Fender Side Molding	240	Rear Window
113	Left Headlight Molding	241	Front Left Vent Window

114	Right Headlight Molding	242	Front Right Vent Window
115	Back Door Outside Molding	243	Rear Left Vent Window
116	Rear Left Quarter Side Molding	244	Rear Right Vent Window
117	Rear Right Quarter Side Molding	245	Windshield
118	Center Tail Light Molding	246	Front Left Wiper Arm
119	Left Tail Light Molding	247	Front Right Wiper Arm
120	Right Tail Light Molding	248	Rear Wiper Arm
121	Front Left Mud Flap	249	Sunroof / Moonroof
122	Front Right Mud Flap	250	Rear Valance
123	Rear Left Mud Flap	251	Front Box Roof Line
124	Rear Right Mud Flap	252	Left Box Roof Line
125	Rear Window Washer Nozzle	253	Rear Box Roof Line
126	Left Windshield Washer Nozzle	254	Right Box Roof Line
127	Right Windshield Washer Nozzle	255	Box Roof Panel

128	Left Cab Arch Panel		
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TABLE 1.2: DAMAGE TYPE ID

ID	DAMAGE TYPE	ID	DAMAGE TYPE
1	Bent	28	Mult Chips
2	Broken	29	Mult Dents/No Paint Damage
3	Bug Damage	30	Mult Dents/Paint Damage
4	Bulged	31	Non factory Decal/ Sticker
5	Burns/Singed	32	Oxidized
6	Chipped	33	Peeling
7	Cracked/No Paint Damage	34	Previous Repair
8	Cracked/Paint Damage	35	Punctured
9	Curb Rash	36	Repainted
10	Cut	37	Road Paint/Overspray
11	De-Identified	38	Rust/Corrosion
12	Dent/No Paint Damage	39	Sandblasted
13	Dent/Paint Damage	40	Scratch Light
14	Faded	41	Scuffed
15	Flat	42	Scuffed with other Paint
16	Foggy	43	Separated
17	Gouged	44	Severe Damage
18	Hail Damage	45	Spare Wheel
19	Heavy Mult Scratches	46	Stained
20	Heavy Scratch	47	Star in Glass

21	Hole	48	Tape Repair
22	Light Mult Scratches	49	Torn
23	Loose	50	Unattached
24	Melted	51	Warped
25	Misaligned	52	Winter Rim
26	Mismatched	53	Winter Tread
27	Missing	54	Worn

TABLE 1.3: SEVERITY ID

ID	SEVERITY	DESCRIPTION
1	Minor	Is minor damage and is reported for notes and does not likely require repair. Chips and dents are considered within the non chargeable in most lease companies and the BVRLA Fair Wear & Tear guidelines
2	Medium	Are damages that require some repair
3	Major	Are damages that require body shop or replacement
4	Minor Not Through Paint	Is minor damage and is reported for notes and does not likely require repair. Chips and dents are considered within the non chargeable in most lease companies and the BVRLA Fair Wear & Tear guidelines
5	Medium Not Through Paint	Are damages that require some repair
6	Major Not Through Paint	Are damages that require body shop or replacement
7	Minor Through Paint	Is minor damage and is reported for notes and does not likely require repair. Chips and dents are considered within the non chargeable in most lease companies and the BVRLA Fair Wear & Tear guidelines
8	Medium Through Paint	Are damages that require some repair
9	Major Through Paint	Are damages that require body shop or replacement

10	Minor Tire Wear	Does not need replacing.
11	Medium Tire Wear	Needs replacing
12	Major Tire Wear	Needs replacing

Sample Inspection Object w/Damage Codes:

Unset

```
{
  "damage_group": "BODY",
  "component": "BEDSIDE_LOWER_LEFT",
  "damage_name": "RUSTED_MAJOR",
  "component_label": "Left Lower Bedside",
  "user_response": null,
  "source": "inspect",
  "label": "Has Major Rust",
  "description": "Rust",
  "tolerance": "Replacement Required",
  "repair_method": "Replace",
  "repair_type": "Body Shop Repair",
  "unit_measure": "Per Component",
  "estimate_category": "",
  "labor_hrs": 0,
  "labor_total": 0,
  "parts_materials": 0,
  "total": 0,
  "grade_score": 4,
  "frame_grade_score": 0,
  "photo": {
    "code": "04",
    "url":
"https://inspections.paveapi.com/PAV-230314124418-145/04/04-annotated.jpg"
  },
  "uuid": "1d1c13sc1f896w7f",
  "cropped_url":
"https://inspections.paveapi.com/PAV-230314124418-145/crop-damages/1d1c13sc1f896w7f.png",
}
```

```
    "cropped_code": "04",  
    "estimate_included": false,  
    "estimate_tbd": false,  
    "material": "Painted",  
    "damage_type": "Rust\\Corrosion",  
    "damage_type_id": 38,  
    "aasc_damage_code": 28,  
    "severity": "Major",  
    "severity_id": 3,  
    "aasc_severity_code": 39,  
    "component_id": 9,  
    "aasc_item_code": 6150  
  },
```