Version 1.2.5
May 2023

# Louisiana eCrash
# API Information

## Endpoint URL

Development
https://laecrash-test.caps.ua.edu/api

Training
https://ecrash-training.la.gov/api

Production
https://ecrash.la.gov/api

## Table of Contents

# Change Log

| | |
|---|---|
| Version 1.2.5 – 05/25/2023 | - Added population instructions for Vehicle.Driver object when a vehicle has no driver at the time of the crash or the driver is unable to be determined in Upload Crash Report Data section.<br>- Added population instructions for Train.Engineer and Train.Conductor objects when a train has no engineer or conductor present at the time of the crash in Upload Crash Report Data section. |
| Version 1.2.4 – 01/23/2023 | - Added Validation Statuses section. |
| Version 1.2.3 – 10/13/2022 | - Added information for Description, Vehicle.Driver, NonMotorist.StrikingVehicleId, Train.Engineer, and Train.Conductor fields<br>- Updated eCrash version to 1.6.0.955<br>- Corrected URL paths for Upload methods. "token" was replaced with "upload". |
| Version 1.2.2 – 9/21/2022 | - Added Crash Report Status Codes to Download Crash Report Statuses for Agency section. |
| Version 1.2.1 – 8/8/2022 | - Added Upload Crash Report Data Data Details section.<br>- Added information regarding validation report within Upload Crash Report Data and Commit Crash Report responses. |
| Version 1.2 – 6/24/2022 | Added Download Filtered Crash Report Data for Agency method. |
| Version 1.1 – 2/3/2022 | Added Query Parameters to Upload Crash Report Data and Commit Crash Report methods. |

# Get Reference Data

```
GET /public/referencedata/v1
```

## Description

***Gets the current eCrash reference data list.***

You may pass the version identifier of the last reference data list you retrieved in the `If-None-Match` header. If the reference data has not been updated since then, the API will respond with status code `304`.

## Authentication

No authentication is required for this API.

## API Details

### Header Parameters

- `If-None-Match`
    - String: `^\"[0-9a-fA-F]{16}\"$`
    - The version of the latest reference data you have received.

### Responses

The following responses should be expected when calling this API:

- `200` – Returns the current reference data.
- `304` – The reference data has not changed since your last check.

# Get Vendor Authentication Token

```
POST /vendor/token/v1
```

## Description

***Requests an authentication token for use with the Vendor API.***

This API is used to authenticate your vendor account and obtain a token used to identify your account to the other vendor APIs.

## Authentication

No authentication is required for this API.

## API Details

### Request Body Schema

application/json

- `Username` – string
- `Password` – string

### Responses

The following responses should be expected when calling this API:

- `200` – Returns a JWT authentication token for use with the eCrash Vendor API in the response body.
- `400` – The required credentials were not provided.
- `401` – The provided credentials were not valid.

# Upgrade Easy Street Draw/ScenePD Diagram

```
POST /vendor/diagram/v1/modernize
```

## Description

***Converts diagrams from older versions of Easy Street Draw/ScenePD into the new format accepted by eCrash.***

This API will convert old Easy Street Draw and ScenePD diagrams into the new (7.x) SVG format. The request body should contain the data from an old Easy Street Draw diagram file or ScenePD casebook. If conversion is successful, the response will be a ZIP file containing each diagram as a separate SVG file.

## Authentication

This API uses a bearer token obtained from the Get Vendor Authentication Token API.

## API Details

### Request Body Schema

application/octet-stream

- string <binary>

### Responses

The following responses should be expected when calling this API:

- `200` – A zip file containing the modernized diagrams in SVG format.
- `400` – The provided Easy Street Draw/ScenePD diagram was invalid.
- `401` – No valid authentication token was provided.

# Download Crash Report Statuses for Agency

```
GET /vendor/download/v1/statuses/{agencyId}
```

## Description

***Downloads updated crash report statuses.***

This API allows you to download the statuses of crash reports for an agency. You can use the crash report IDs returned in the status information to download individual reports with the other download APIs.

You are expected to save the value of the `ETag` response header after each call to the API and send that value for the `If-None-Match` request header in the next call. This tells the server what records you have already downloaded so it can send you only records updated since then.

It supports pagination using the `skip` and `take` parameters. To use this, increment the `skip` parameter by the number of records returned, while keeping the same value in the `If-None-Match` header, until no records are returned.

Alternatively, you can keep the `skip` parameter at 0 and update the `If-None-Match` header each time with the value of the `ETag` header from the previous call to page through the results.

### Crash Report Status Codes

| Id | Name |
|---|---|
| 0 | Pending |
| 1 | Approved |
| 2 | Rejected |
| 3 | Reassigned |
| 4 | Voided |

## Authentication

This API uses a bearer token obtained from the Get Vendor Authentication Token API.

## API Details

### Path Parameters

- `agencyId` (*required*) – string <uuid>
  - The ID of the agency to check for updated report statuses

### Query Parameters

- `skip`
  - integer <int32>
  - Default: `0`
  - The number of results to skip (for pagination)
- `take`
  - integer <int32>
  - Default: `100`

- The maximum number of results to return (for pagination; max: 100)

## Header Parameters

- `If-None-Match`
  - String: `^\"[0-9a-fA-F]{16}\"$`
  - The row version value for the last result you have previously received, surrounded by double quotes (obtained from the `ETag` header).
  - Only records updated since this version will be returned.

## Responses

- `200` – The response will contain up to `take` crash report status records updated since the version specified in the `If-None-Match` header (or since the beginning if the header is omitted) as JSON array containing objects conforming to the CrashReportStatus schema included in the vendor SDK.
- `304` – No crash report statuses have been uploaded or modified since your last check.
- `400` – The `take` parameter must be between 1 and 100.
- `401` – No valid authentication token was provided.
- `403` – You do not have permission to download crash report statuses for this agency.

# Download Crash Report Data

```
GET /vendor/download/v1/crashReport/{id}
```

## Description

***Downloads the JSON data for a crash report.***

This API allows you to download the data from a crash report in JSON format. It does not include diagram or attachment data; see the Download Crash Report Attachment API to download those.

Note that you may not be allowed to download reports that are not in the Approved status, depending on your account permissions.

## Authentication

This API uses a bearer token obtained from the Get Vendor Authentication Token API.

## API Details

### Path Parameters

- `id` (*required*) – string <uuid>
    - The ID of the crash report to download.

### Responses

- `200` – Returns the crash report data.
- `401` – No valid authentication token was provided.
- `403` – You do not have permission to download crash reports for this agency.
- `404` – No crash report with the given ID was found.
- `451` – This report is not approved, and you do not have permission to download unapproved reports.

# Download Filtered Crash Report Data for Agency

```
GET /vendor/download/v1/filteredReports/{agencyId}/{filterName}
```

## Description

***Downloads the filtered crash report JSON data for an agency.***

This API allows you to download filtered crash report data for an agency.

You are expected to save the value of the `ETag` response header after each call to the API and send that value for the `If-None-Match` request header in the next call. This tells the server what records you have already downloaded so it can send you only records updated since then.

It supports pagination using the `skip` and `take` parameters. To use this, increment the `skip` parameter by the number of records returned, while keeping the same value in the `If-None-Match` header, until no records are returned.

Alternatively, you can keep the `skip` parameter at 0 and update the `If-None-Match` header each time with the value of the `ETag` header from the previous call to page through the results.

## Authentication

This API uses a bearer token obtained from the Get Vendor Authentication Token API.

## API Details

### Path Parameters

- `agencyId` (*required*) – string <uuid>
  - The ID of the agency to check for updated crash report data
- `filterName` (*required*) – string
  - The filter to apply to the crash report data
  - Supported filters
    - `Carfax`

### Query Parameters

- `skip`
  - integer <int32>
  - Default: `0`
  - The number of results to skip (for pagination)
- `take`
  - integer <int32>
  - Default: `100`
  - The maximum number of results to return (for pagination; max: 100)

### Header Parameters

- `If-None-Match`
  - String: `^\"[0-9a-fA-F]{16}\"$`

  - The row version value for the last result you have previously received, surrounded by double quotes (obtained from the `ETag` header).
  - Only records updated since this version will be returned.

## Responses

- `200` – The response will contain up to `take` filtered crash report records updated since the version specified in the `If-None-Match` header (or since the beginning if the header is omitted) as a JSON array containing objects conforming to the requested filter.
- `304` – No crash reports have been uploaded or modified since your last check.
- `400` – The `take` parameter must be between 1 and 100. Or, an unrecognized `filterName` was supplied.
- `401` – No valid authentication token was provided.
- `403` – You do not have permission to download filtered crash report data for this agency.

# Download Crash Report Attachment

```
GET /vendor/download/v1/attachment/{id}/{hash}/{filename}
```

## Description

***Downloads an attachment for a crash report.***

This API allows you to download an attachment or diagram file from a crash report.

You will need to specify the crash report ID and the SHA-1 hash and filename of the attachment. These can be obtained from the crash report JSON data.

Note that you may not be allowed to download attachments for reports that are not in the Approved status, depending on your account permissions.

## Authentication

This API uses a bearer token obtained from the Get Vendor Authentication Token API.

## API Details

### Path Parameters

- `id` (*required*) – string <uuid>
  - The ID of the crash report to download attachments from.
- `hash` (*required*) – string
  - The SHA-1 hash of the attachment to download, in hexadecimal format.
- `filename` (*required*) – string
  - The filename of the attachment to download.

### Responses

- `200` – Returns the crash report attachment data.
- `401` – No valid authentication token was provided.
- `403` – You do not have permission to download crash reports for this agency.
- `404` – No attachment with the given ID was found.
- `451` – This crash report is not approved, and you do not have permission to download unapproved reports.

# Download Crash Report PDF

```
GET /vendor/download/v1/pdf/{id}
```

## Description

***Downloads the PDF of a crash report.***

This API allows you to download a PDF of a crash report.

Note that you may not be allowed to download reports that are not in the Approved status, depending on your account permissions.

## Authentication

This API uses a bearer token obtained from the Get Vendor Authentication Token API.

## API Details

### Path Parameters

- `id` (*required*) – string <uuid>
  - The ID of the crash report to download

### Query Parameters

- `Revision` – The revision number of the crash report (or 0 to get the latest revision)
  - integer <int32>
  - Default: `0`
- `includeAttachments` – Include the attachments page, if any.
  - boolean
  - Default: `true`
- `includePhotos` – Include the photos page, if any.
  - boolean
  - Default: `true`
- `Redact` – Redact sensitive information.
  - boolean
  - Default: `false`

### Responses

- `200` – Returns a PDF of the crash report.
- `401` – No valid authentication token was provided.
- `403` – You do not have permission to download crash reports for this agency.
- `404` – No crash report with the given ID was found.
- `451` – This report is not approved, and you do not have permission to download unapproved reports.

# Upload Crash Report Data

```
POST /vendor/upload/v1/crashReport
```

## Description

***Upload the JSON data for a crash report***

## Introduction

This API is used to upload the JSON data for a crash report. It is the first step of uploading a crash report.

If the server has all required components of the crash report (including all diagrams and attachments) and the crash report passes validation, then this API will respond with status code `200` and the report will be entered into the database. In this case, you do not need to call the Commit Crash Report API.

If one or more required components of the crash report is missing, then this API will respond with status code `202` and the report data will be placed in a temporary staging area. The response will contain a token identifying this upload and list of missing attachments that must be uploaded before the report can be entered into the main database. Once all of the missing attachments have been uploaded, call the Commit Crash Report API to validate the complete report and, if successful, move it to the main database.

## Data Details

The Louisiana eCrash crash report schema is found at https://ecrash.la.gov/crashreportschema.json. Any field in the schema with the type `null` can be populated with `null`. However, validation rules will be enforced for proper crash report completion. Here are fields of note when uploading the crash report.

### CrashReport.Id

Each crash report must have a `GUID` that is globally unique and persistent across all crash reports. This `GUID` must be generated for each unique crash report. If a crash report is resubmitted, it must contain the same `CrashReport.Id` as the initial submission.

### AgencyId

This **must** be the Agency ID for the agency. This will be the `Agency.CasId` field in the reference data.

### AgencyName

It is recommended to supply the value in `Agency.Name` field in the reference data.

### AgencyCode

It is recommended to supply the value in `Agency.Code` field in the reference data.

### AgencyDivision

This is a customizable field per agency. Any value can be supplied for this field.

### CreatorUserId

This must be a `GUID`. It is recommended to supply the ID for the vendor account used to upload the crash report.

### CreatorUsername

It is recommended to supply the username of the vendor account.

### *Description

Multiple fields with the Crash Report have a related description field. The respective description field should only be populated when the field's option includes the "RequresDescription" tag.

### Vehicle.Driver

The `Vehicle.Driver` object should be assigned `null` (`"Driver": null`) when a vehicle has no driver at the time of the crash or the driver is unable to be determined.

### NodeId

Multiple objects within the Crash Report contain a `NodeId` property. This field serves as a unique identifier for its respective child object within the crash report. The `NodeId` is a `GUID` that must be globally unique across all objects and crash reports.

### NonMotorist.StrikingVehicleId

The `NonMotorist.StrikingVehicleId` field should be populated with the `Vehicle.NodeId` of the striking vehicle.

### Train.Engineer

The `Train.Engineer` object should be assigned `null` (`"Engineer": null`) when a train has no engineer present at the time of the crash.

### Train.Conductor

The `Train.Conductor` object should be assigned `null` (`"Conductor": null`) when a train has no conductor present at the time of the crash.

### LastUpdatedWithVersion

The `LastUpdatedWithVersion` field must be included in each crash report. The value of this field determines the expected schema and applicable validation rules of the report. The current version is `1.6.0.955`. When updates are made to the eCrash system you will be notified of the new version and applicable changes for that version.

### ModifierSignature

The `ModifierSignature` field must be included in each crash report. The value of this field will be considered the electronic signature of the person completing the crash report.

### ModifierSignatureTimestamp

The `ModifierSignatureTimestamp` field must be included in each crash report. The value of this field should be the date and time the user last modified this revision of the report.

### FmcsaReportability

Supply `0` for this field. This will automatically be computed by eCrash upon upload.

## Authentication

This API uses a bearer token obtained from the Get Vendor Authentication Token API.

## API Details

### Query Parameters

- `mode` – string
  - The upload mode. Allows you to indicate if you are uploading for validation or submission.
  - Default: `Upload`
  - Allowed values: `Upload`, `Validate`
- `reviewingOfficerRank` – string
  - The reviewing officer's rank.
- `reviewingOfficerFirstName` – string
  - The reviewing officer's first name.
- `reviewingOfficerMiddleName` – string
  - The reviewing officer's middle name.
- `reviewingOfficerLastName` – string
  - The reviewing officer's last name.
- `reviewingOfficerNameSuffix` – string
  - The reviewing officer's name suffix.
- `reviewingOfficerId` – string
  - The reviewing officer's badge number.

### Request Body Schema

Please refer to the Data Details section for details concerning the request body.

### Responses

- `200` – Returns the status of the uploaded report. The response body will include a validation report, if applicable.
- `202` – Returns the status of the partially uploaded report.
- `400` – The crash report failed one or more validation checks. The response body will include the validation report.
- `401` – No valid authentication token was provided.
- `403` – You do not have permission to upload this crash report.
- `409` – Another crash report with the same local case number was found on the server.

# Upload Crash Report Attachment

```
POST /vendor/upload/v1/attachment/{id}/{token}
```

## Description

***Upload an attachment to a crash report in staging***

## Introduction

This API is used to upload a crash report attachment to the server.

You must pass the upload token received from the Upload Crash Report Data API in the `token` parameter to associate this attachment with the report in the staging area. The attachment must also be listed as an attachment or diagram in the crash report JSON uploaded previously.

Once all of the missing attachments have been uploaded, call the Commit Crash Report API to validate the complete report and, if successful, move it to the main database.

## Authentication

This API uses a bearer token obtained from the Get Vendor Authentication Token API.

## API Details

### Path Parameters

- `id` (*required*) – string <uuid>
  - The ID of the crash report being uploaded
- `token` (*required*) – string
  - The upload token received after uploading the crash report JSON data

### Request Body Schema

multipart/form-data

- `attachment` - string <binary>

### Responses

- `200` – The attachment has been accepted to the staging area.
- `401` – No valid authentication token was provided.
- `403` – You do not have permission to upload this attachment.
- `404` – No crash report with the given ID was found in the staging area, or the crash report in staging does not contain this attachment.

# Commit Crash Report

```
POST /vendor/upload/v1/commit/{id}/{token}
```

## Description

***Commits a crash report from the staging area to the live database.***

This API is used to finalize a crash report upload. It is the final step of the crash report upload process.

It assembles the complete crash report using the previously uploaded components, runs the validation rules against it, and if the report passes, it is saved in the main database.

If the Upload Crash Report Data API returned `200`, then the report has already been committed, and you do not need to call this API. If it returned `202`, then the report is still in staging until this API is called.

## Authentication

This API uses a bearer token obtained from the Get Vendor Authentication Token API.

## API Details

### Path Parameters

- `id` (*required*) – string <uuid>
  - The ID of the crash report being uploaded
- `token` (*required*) – string
  - The upload token received after uploading the crash report JSON data

### Query Parameters

- `mode` – string
  - The upload mode. Allows you to indicate if you are uploading for validation or submission.
  - Default: `Upload`
  - Allowed values: `Upload`, `Validate`
- `reviewingOfficerRank` – string
  - The reviewing officer's rank.
- `reviewingOfficerFirstName` – string
  - The reviewing officer's first name.
- `reviewingOfficerMiddleName` – string
  - The reviewing officer's middle name.
- `reviewingOfficerLastName` – string
  - The reviewing officer's last name.
- `reviewingOfficerNameSuffix` – string
  - The reviewing officer's name suffix.
- `reviewingOfficerId` – string
  - The reviewing officer's badge number.

### Responses

- `200` – Returns the status of the uploaded report. The response body will include a validation report, if applicable.

- `202` – Returns the status of the partially uploaded report.
- `400` – The crash report failed one or more validation checks. The response body will include a validation report.
- `401` – No valid authentication token was provided.
- `403` – You do not have permission to upload this crash report.
- `409` – Another crash report with the same local case number was found on the server

# Validation Statuses

| Status | Code | Description |
|---|---|---|
| Okay | 0 | There are no warnings or errors in the report. |
| Information | 25 | This status is used to inform the user of a suggested response. |
| Warning | 50 | This status is used when a recorded value is logically accepted but consideration for a different value is needed. |
| SevereWarning | 75 | This status is used when a recorded value is logically accepted but is strongly advised against. Strong consideration for a different value is needed. |
| Incomplete | 100 | This status is used when a required value is missing. A report is not accepted with this status code. |
| Error | 200 | This status is used when a recorded value is not logically accepted. A report is not accepted with this status code. |
| Bug | 500 | This status is used when a report has values not consistent with system expectations. A Bug status should be prevented within the software. A user should not be able to trigger a bug rule. A report is not accepted with this status code. |