CUOPT 22.10 RELEASE

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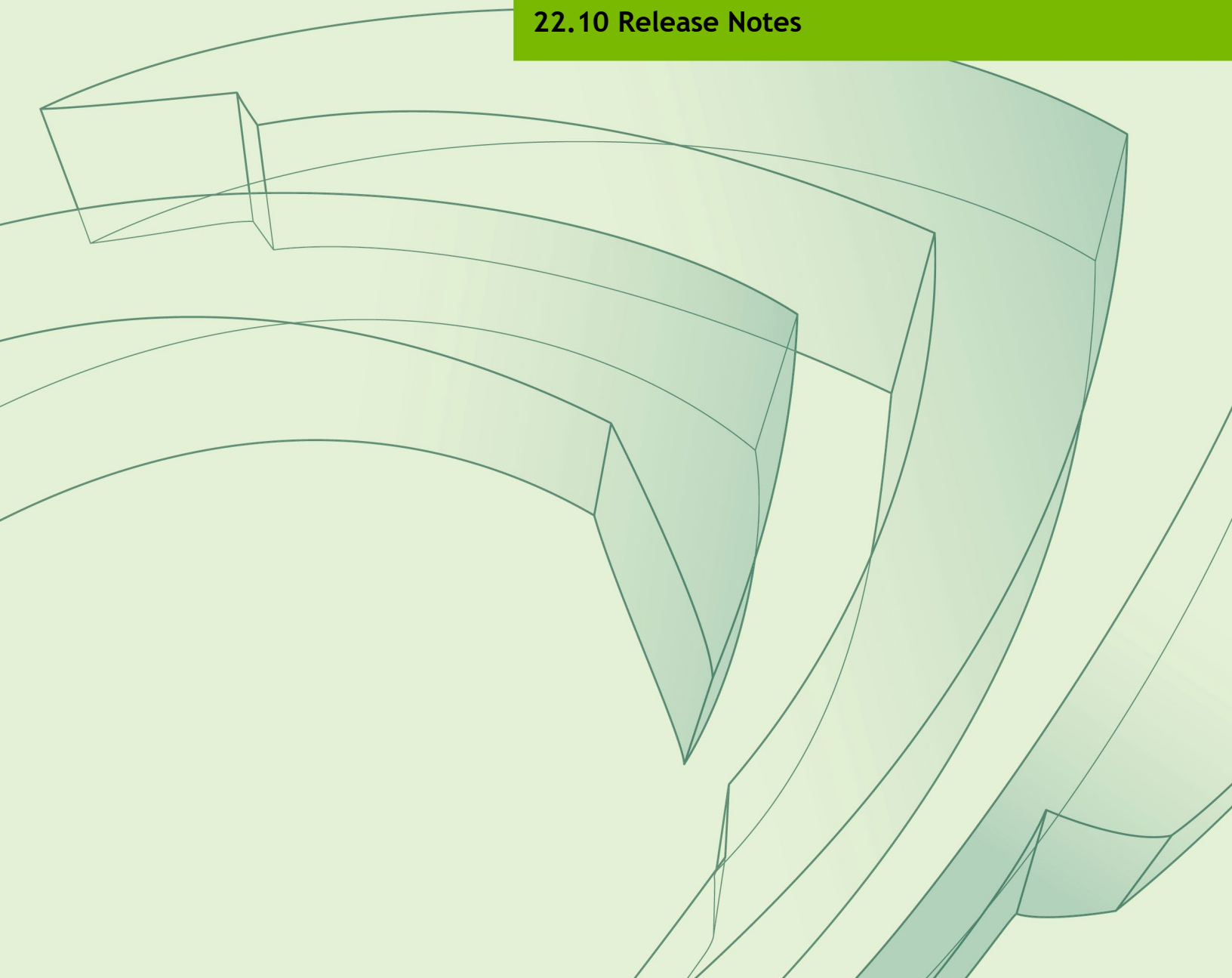
Advance Information | Subject to Change

22.10 Release Notes



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1.0 ABOUT THIS RELEASE

1.1 WHAT'S NEW

The following new features are supported in this cuOpt release:

1.1.1 cuOpt 22.10

- *Drop of infeasible orders* feature in the cuOpt microservice and Python library
- Support for heterogeneous fleet maximum cost per vehicle
- Implement order priorities in the context of *drop infeasible orders* feature
- cuOpt dashboard for routing results visualization

1.1.2 Improvements from previous releases

- Resolves infeasible state due to conflicting vehicle break time and order time windows
- Solver API refactoring for consistent naming and modularization
- Arrival stamp and task definition updates displayed on cuOpt server results dashboard
- Adds job priority support to the cuOpt server
- Adds vehicle to order match and order to vehicle match support in cuOpt server
- Improvements in Quality-of-Results (QoR) for pickup-and-delivery
- Warning for type casting input data
- Removes the limitation that the first order location should be corresponding to the depot
- Supports multi cost matrix in the cuOpt server
- Fixes the crash due to value overflow
- Initializes per thread objective values when objective functions are used
- Adds dynamic re-optimization notebook based on cuOpt server APIs

- Uses 32-bit integers to represent demand and capacity to avoid overflow

1.2 CONTENTS OF THIS RELEASE

This release includes the following:

- cuOpt:22.10 docker container available in NGC
  - cuOpt python and server library
  - cuOpt API guide available in /home/cuopt_user/docs
  - Example notebooks for server and python in /home/cuopt_user/notebooks
  - Change Log for the release in /home/cuopt_user/ CHANGELOG.md
  - License for using cuOpt in LICENSE.md
- cuOpt DLI course for 22.10
  - cuOpt Resources 22.10
  - containing example notebooks,
  - cloud scripts to spin up GCP, AZURE and AWS instances with cuOpt:22.10
  - NVIDIA Issac sim™ extension for NVIDIA Omniverse™
- cuOpt-22.10.0.tgz helm chart available in NGC

1.3 DOCUMENTATION IN THIS RELEASE

This release contains the following documentation.

- *NVIDIA cuOpt API Guide 22.10* Release

2.0 LIMITATIONS

This section provides details about issues discovered during development and QA but not resolved in this release.

Note: **The cuOpt 22.10 container is set to expire six months after the release date.**

- In the cuOpt microserver, task locations cannot be updated using a `PUT` request due to incorrect validation. It must be set using a `POST` request along with other relevant data.

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