

## Apex Internal CI

### Wheel Combinations

Apex wheels will be built for the following combinations:

- Apex Versions: master (1.8.0), 1.7.0, 1.6.0, 1.5.0, 1.4.0
- ROCm Versions: 7.0, 6.4, 6.3, 6.2, 6.1, 6.0
- Python Versions: 3.9 (cp39), 3.10 (cp310), 3.11 (cp311), 3.12 (cp312), 3.13 (cp313)
- Platform: linux\_x86\_64

### Apex Build Configuration Strategy Table

Apex Version	PyTorch Version	ROCm Version	Python Versions	Platform	Number of Wheels
1.4.0	2.4.0	6.0	cp38, cp39, cp310, cp311, cp312	linux_x86_64	5
1.4.0	2.4.0	6.1	cp38, cp39, cp310, cp311, cp312	linux_x86_64	5
<b>Total for 1.4.0</b> (1 PyTorch version × 2 ROCm versions × 5 Python versions)					<b>10</b>
1.5.0	2.5.0	6.1	cp39, cp310, cp311, cp312	linux_x86_64	4
1.5.0	2.5.0	6.2	cp39, cp310, cp311, cp312	linux_x86_64	4
<b>Total for 1.5.0</b> (1 PyTorch version × 2 ROCm versions × 4 Python versions)					<b>8</b>

1.6.0	2.6.0	6.1	cp39, cp310, cp311, cp312, cp313, cp313t	manylinux _2_28_x86 _64	6
1.6.0	2.6.0	6.2.4	cp39, cp310, cp311, cp312, cp313, cp313t	manylinux _2_28_x86 _64	6
<b>Total for 1.6.0</b> (1 PyTorch version × 2 ROCm versions × 6 Python versions)					<b>12</b>
1.7.0	2.7.0	6.2.4	cp39, cp310, cp311, cp312, cp313, cp313t	manylinux _2_28_x86 _64	6
1.7.0	2.7.0	6.3	cp39, cp310, cp311, cp312, cp313, cp313t	manylinux _2_28_x86 _64	6
1.7.0	2.7.0	6.4	cp39, cp310, cp311, cp312, cp313, cp313t	manylinux _2_28_x86 _64	6
<b>Total for 1.7.0</b> (1 PyTorch version × 3 ROCm versions × 6 Python versions)					<b>18</b>
1.8.0	2.8	6.4	cp39, cp310,	manylinux _2_28_x86	6

			cp311, cp312, cp313, cp313t	_64	
1.8.0	2.8	7.0	cp39, cp310, cp311, cp312, cp313, cp313t	manylinux _2_28_x86 _64	6
<b>Total for 1.8.0</b> (1 PyTorch version × 2 ROCm versions × 6 Python versions)					<b>12</b>
<b>Total Sum of Wheels</b>					<b>60</b>

Note: Drafted this strategy table similar to [PyTorch wheels](#)

## Naming Convention

The wheel names follow a pattern similar to [PyTorch wheels](#), incorporating the Apex version, ROCm version, Python version, and platform:

**i** apex-<apex\_version>+rocm<rocm\_version>+git<commit-id>-cp<python\_version>-cp<python\_version>-linux\_x86\_64.whl

Example:

- apex-1.8.0+rocm7.0git8d873bb6-cp39-cp39-linux\_x86\_64.whl
- apex-1.5.0+rocm6.2git3bb68d87-cp313-cp313-linux\_x86\_64.whl

## Build Triggers

- **Manual Trigger:**
  - Initiate for significant Apex updates. Such as new features.
  - Applicable for all the Apex versions (1.4.0, 1.5.0, 1.6.0, 1.7.0, 1.8.0)
  - when a new compiler version is introduced in ROCm, specifically for ROCm 6.4 (Apex 1.7.0, 1.8.0) and ROCm 7.0 (Apex 1.8.0).
  - Initiated for specific updates in ROCm 7.0 (Apex 1.8.0) due to its active development and frequent changes. Manual control ensures builds are triggered only for significant ROCm

## 7.0 updates

- **Automated Trigger:** Regenerate the wheels when
  - Changes pushed to apex branch 1.7.0, 1.8.0 (master)
  - New PyTorch release - built for supported Apex version.
  - New Rocm release - build for supported version.
  - New Python release - built for supported Apex versions.
  - Monthly build for Apex 1.8.0 (master)