# The D.out output file

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## Purpose

- This file contains the dynamical matrices $D(\vec{k})$ at different k points.

## File format

- It has `3 * N_basis * N_kpoints` rows and `6 * N_basis` columns, where `N_basis` is the number of basis atoms in the unit cell defined in the basis.in file and `N_kpoints` is the number of k points in the kpoints.in file.
- Each consecutive `3 * N_basis` rows correspond to one k point. For each k point, the first `3 * N_basis` columns correspond to the real part and the second `3 * N_basis` columns correspond to the imaginary part. Schematically, the file is organized as:

```
D_real(k_0) D_imag(k_0)
D_real(k_1) D_imag(k_1)
...
```

- The matrix elements are in units of eV A$^{-2}$ amu$^{-1}$.

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