Global geomagnetic field reconstructions for the Holocene can provide powerful information about the geodynamo process and can constrain geomagnetic shielding, which is important for our understanding of the interaction between the geomagnetic field and cosmogenic nuclide production. Coherent structure is evident in these reconstructions and this has significant implications for controls on the geodynamo. However, the resolution and reliability of current models require improvements and are limited by: 1) the restricted global coverage of sites, especially in the southern hemisphere; 2) the low precision of some magnetic data and independent dates; 3) an incomplete assessment of data quality. Improving these aspects for sedimentary records are particularly important as loosely constrained sedimentary data have a large influence on the model output. We present the first steps towards a new database of global sedimentary data extended to 10 ka. This includes new records compared with CALS7K.2, CALS3K.3, SED3K.1 models and a compilation of all rock magnetic data, lithological data, and dating controls for both new and previously modelled records. These additional parameters will allow an accurate assessment of the fidelity of directional and relative palaeointensity data and their temporal resolution. High quality data can then be selected to optimize subsequent global modelling of the Holocene geomagnetic field.