



A Research on Development of The Multi-mode Flood Forecasting System Version Management

J.-C. Shen (1), C.H. Chang (2), H.C LIEN (3), S.J. Wu (3), and M.J. Horng (4)

(1) National Taipei University of Technology, Institute of Engineering Technology, Civil Engineering, Taiwan (coop.shen@gmail.com), (2) National Taipei University of Technology, Civil Engineering, Taiwan, (3) National Center for High-Performance Computing, Taiwan (hclien@nchc.org.tw, sjwu@nchc.org.tw), (4) Water Resources Agency (WRA), Ministry of Economic Affairs (MOEA), Taiwan (mjhorng@wra.gov.tw)

With the global economy and technological development, the degree of urbanization and population density relative to raise. At the same time, a natural buffer space and resources year after year, the situation has been weakened, not only lead to potential environmental disasters, more and more serious, disaster caused by the economy, loss of natural environment at all levels has been expanded. In view of this, the active participation of all countries in the world cross-sectoral integration of disaster prevention technology research and development, in addition, the specialized field of disaster prevention technology, science and technology development, network integration technology, high-speed data transmission and information to support the establishment of mechanisms for disaster management The decision-making and cross-border global disaster information network building and other related technologies, has become the international anti-disaster science and technology development trends, this trend. Naturally a few years in Taiwan, people's lives and property losses caused by many problems related to natural disaster prevention and disaster prevention and the establishment of applications has become a very important. For FEWS_Taiwan, flood warning system developed by the Delft Hydraulics and introduced the Water Resources Agency (WRA), it provides those functionalities for users to modify contents to add the basins, regions, data sources, models and etc. Despite this advantage, version differences due to different users or different teams yet bring about the difficulties on synchronization and integration. At the same time in different research teams will also add different modes of meteorological and hydrological data. From the government perspective of WRA, the need to plan standard operation procedures for system integration demands that the effort for version control due to version differences must be cost down or yet canceled out. As for FEWS_Taiwan, this paper proposed the feasible avenues and solutions to smoothly integrate different configurations from different teams. In the current system has been completed by 20 of Taiwan's main rivers in the building of the basic structure of the flood forecasting. And regular updating of the relevant parameters, using the new survey results, in order to have a better flood forecasting results.