

Problem Solving Environment for Flood Forecasting¹

L. Hluchy, O. Habala, B. Simo,

J. Astalos, V. D. Tran, M. Dobrucky

Institute of Informatics, Slovak Academy of Sciences

Dubravská cesta 9, 842 37 Bratislava, Slovakia

hluchy.ui@savba.sk

Abstract

This paper presents a prototype of the Collaborative Problem Solving Environment for Flood Forecasting. Flood forecasting is a complex problem that requires cooperation of many scientists in different areas. To enable this cooperation in a manner comfortable to hydrometeorological experts, a part of the CrossGrid project is aimed towards developing a PSE, whose prototype is described here. The PSE consists of a cascade of simulation models, a storage system for computed and measured data and

other used datasets, a web-based portal with collaboration tools and a powerful computation facility. The whole system is tied together by Grid technology and is used to support a virtual organization of experts, developers and users.

1. Introduction

In this paper we present a prototype of a collaborative problem solving environment [1] intended to support a virtual organization for flood forecasting. Over the past few years, floods have caused severe damages throughout

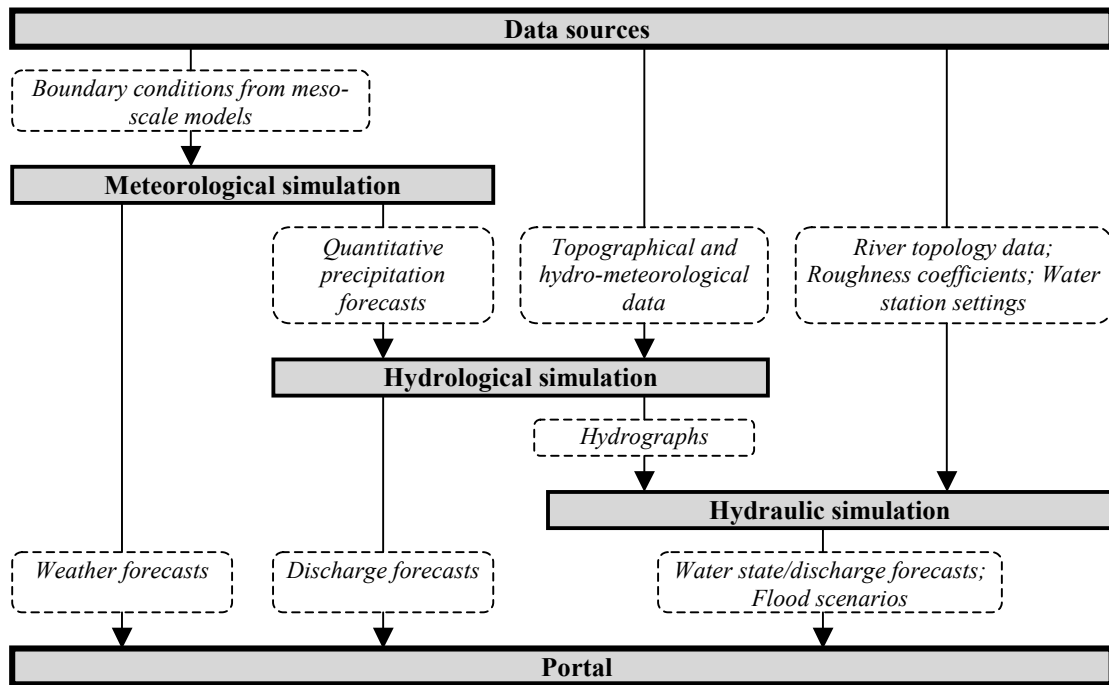


Fig. 1 Cascaded simulation scheme

¹ This work is supported by EU 5FP CROSSGRID IST-2001-32243 RTD project and the Slovak Scientific Grant Agency within Research Project No. 2/7186/20