

DAM UI

Technical Design



Deltares

DAM UI

Technical Design

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Summary

This document contains the technical design for DAM UI, an application that computes the strength of a complete dike with respect to several failure mechanisms, such as macro stability and piping.

Samenvatting

Dit document bevat het technisch ontwerp voor DAM UI, een User Interface applicatie die een gebruiker in staat stelt om voor een dijktraject berekeningen uit te voeren voor verschillende faalmechanismen, waaronder macrostabiliteit en piping.

References

Refer to [chapter 7](#).

Version	Date	Author	Initials	Review	Initials	Approval	Initials
0.1	Jan 2017	Tom The		John Bokma		Maya Sule	

Status

draft

This is a draft report, intended for discussion purposes only. No part of this report may be relied upon by either principals or third parties.

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1 Introduction

1.1 Purpose and scope of this document

This document contains the technical design for the standalone program DAM UI, a software package for the automated calculation of the strength of dikes. DAM was developed by Deltares with and for STOWA for all water authorities.

1.2 Other system documents

The full documentation on the program comprises the following documents.

Title	Content
Functional Design (Zwan, 2017)	Description of the requirements and functional design of DAM UI.
Technical Design (this document) (The, 2017b)	Description of the technical design of DAM UI.
Technical documentation (Doxygen, 2017)	Description of the arguments and usage of different software components, generated from in-line comment with Doxygen.
Test Plan (Trompille, 2017a)	Description of the different regression and acceptance tests, including target values, of DAM UI.
Test Report (Trompille, 2017b)	Description of the test results (benchmarks and test scripts), of DAM UI.
User Manual (Erik Vastenburg, 2013)	Description of the different functionalities available in the <i>User Interface</i> and background information.

Table 1.1: DAM UI system documents.

2 System Architecture

2.1 DAM components

DAM UI is part of the whole DAM system that contains several components. Please see [Figure 2.1](#) for an overview of the components of DAM. In [\(The, 2017a\)](#) a description of the overall architecture of the DAM system can be found.

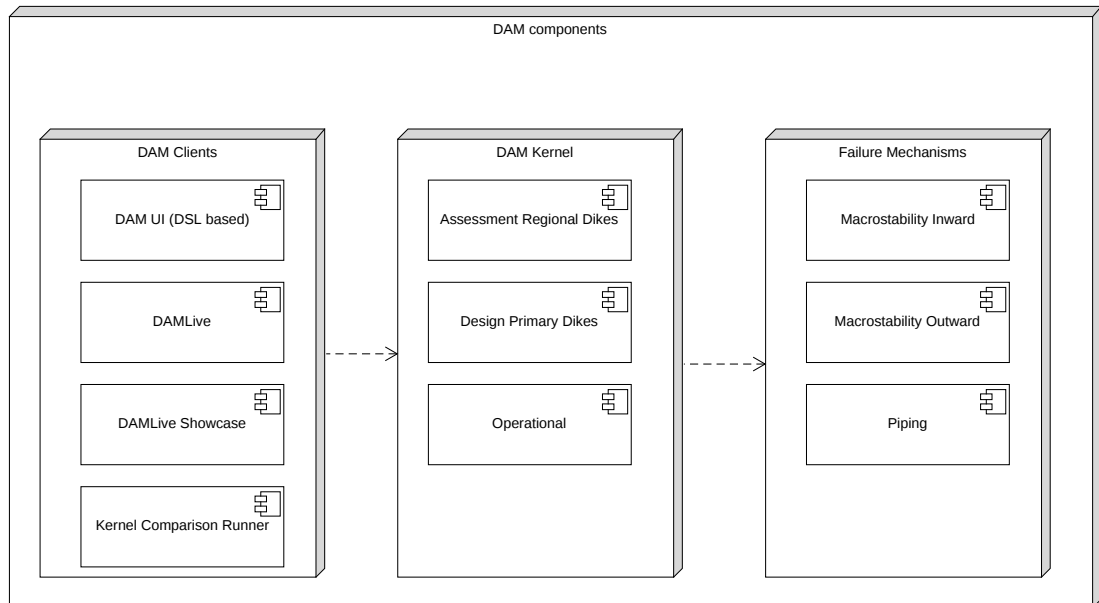


Figure 2.1: DAM UI and its components.

The arrows illustrate the dependencies of the components.

3 Architectural Choices

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4 Data Model

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5 Data Description

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6 Module Description

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