MINT User Guide Analysis Tool of MEASURE Platform

Registration

The first step to start using Mint is add it into the MEASURE web application, allowing the tool to run embedded into MEASURE and retrieve the measurements data for the analysis.

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Once the tool is running it can be registered into the Measure platform.

- Access to the project where you want to use Mint.
- Access to the configuration tab of the project page configuration and click on Add Analysis tool

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	Project Configuration Me	easures Instances MINT						
Project Overview	General Informations							× ×
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Notifications (4)		Creation Date						
Configuration	Analysis Tools						А	dd Analysis Tool
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• Mint should be visible in the list of analysis tools to activate. Click on Add Mint Tool.

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• If Mint was added successfully you should see it in the list of available analysis tools with the status Service Available in green. A tab should also appear in the configuration menu and an option in the Project Menu with the name Mint.

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Now the tools are ready to be configured and used.

Configuration

Access to the Mint tab of the project page configuration.

There is a table with the available EFSMs (Extended Finite State Machines) displaying name, description, category, role to which the recommendation is guided, status of the machine (Active or Inactive) and options.

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Project	Project Configuration	Measures Instances MINT					
Dashboards	Machine Name	Description	Category	Role	Status	Options	Î
© MINT	Software Modularity	Considering that a modular code can be more understandable and maintainable this machine correlates two metrics to compute the ratio : R = class complexity/maintainability rating If this ratio is more than the threshold a recommendation is given.	Code Quality	Developer/Designer	Active Ir	nactive 🖋	
(4)	Software Performance	Considering that the response time denotes the delay that can be caused by the software, hardware or networking part that is computed during operation. This delay is in general the same for a constant bandwidth (an equivalent number of users and concurrent sessions). Based on this finding, we can correlate the two metrics and compute that the response time is not increasing for during time for the same bandwidth usage. If this response time is increasing, a recommendation is given.	Performance	Operator	Active	nactive I	

The state of each of the machines can be changed, this determines if the analysis is performed and the corresponding recommendations are received.

Machine Name	Description	Category	Role	Status	Options
Software Modularity	Considering that a modular code can be more understandable and maintainable this machine correlates two metrics to compute the ratio : R = class complexity/maintainability rating If this ratio is more than the threshold a recommendation is given.	Code Quality	Developer/Designer	Active Inactive	1
Software Performance	Considering that the response time denotes the delay that can be caused by the software, hardware or networking part that is computed during operation. This delay is in general the same for a constant bandwidth (an equivalent number of users and concurrent sessions). Based on this finding, we can correlate the two metrics and compute that the response time is not increasing for during time for the same bandwidth usage. If this response time is increasing, a recommendation is given.	Performance	Operator	Active Inactive	1

The name, description and text of the recommendation can also be modified, as well as the threshold value (if applicable) as required.

These changes are only applied to the project where the modifications are being made and does not affect the rest.

Machine Name	Description	Edit Machine	×		Status	Optic	ons
Software	Considering that a mod	Machine Name		signer	Active Inacti	/e	
Modularity	two metrics to comput	Software Modularity					
	complexity/maintainab the threshold a recomr	Machine Description					
Software Performance	Considering that the re can be caused by the s	Considering that a modular code can be more understandable and maintainable this machine correlates two metrics to compute the ratio :	•		Active Inacti	/e 🖋	
	general the same for a	Recommendation Text					
	finding, we can correlat the response time is no same bandwidth usage	Reinforce the modular design of your development to allow more extensible, reusable, maintainable, and adaptable code.	li				
	a recommendation is g	Threshold					
Requirements Quality	Considering that the fa during the developmen	50			Active Inacti	/e	
	correlates two metrics	Cancel Save					

Visualization

The list of recommendations can be accessed from the Mint page within the project.

The recommendations are found in a table sorted by date, with the columns last updated, machine name, status of the recommendation (and number of recommendations made), category, role to which the recommendation is directed and recommendation text.

me / Projects / Me	easure Platform					
	Show 10 • ent	ries				Search:
Project Overview	Last Updated ↑↓	Machine î↓	State î↓	Category 1	Role îl	Recommendation
Phases	Wed May 23 2018 18:14:20	Software Modularity	Active	Code Quality	Developer/Designer	Reinforce the modular design of your development to allow more extensible, reusable, maintainable, and adaptable code.
MINT	Wed May 23 2018 18:14:20	Software Performance	Active	Performance	Operator	Check the last commit for problems in the code that generate a longer response time
(4)	Wed May 23 2018 18:14:20	Requirements Quality	Active	Specification	Analyst	Refine requirements definitions or provide more details to avoid development rework
¢ onfiguration	Wed May 23 2018 18:14:20	Code Reliability	Active	Code Quality	Developer/Tester	There is unsolved major issues in the code, make a code review and look for untested scenarios
	Wed May 23 2018 18:14:20	Software Security	Active	Security	Security Expert	Check code for vulnerabilities like error handling or input validation

By clicking on any of the recommendations, a model is displayed with the details of each of the recommendations made: date and time, status and details.

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	Show 10 • er	tries	_			Search:
roject erview	Last Updated 14	Machine 🌐	Detail		>	<
H nases	Wed May 23 Software			commit foi e time	r problems in the code that generate a	ular design of your development to
0	2018 18:14:20	Modularity	Date	Status	Details	ible, reusable, maintainable, and
	Wed May 23 2018 18:14:20	Software Performance	23/05/2018 16:14:20	Active	old response_time : 100 new response_time : 200 old bandwith : 100 new bandwith : 100	mit for problems in the code that response time
(4)	Wed May 23 2018 18:14:20	Requirements Quality	30/04/2018	Active	class_complexity : 100 maintainability rating : 1 threshold :	ts definitions or provide more details to t rework
¢ guration	Wed May 23	Code			50	major issues in the code, make a code
	Wed May 23 2018 18:14:20	Software	23/03/2018 04:28:41	23/03/2018 Active class_complexity:100 04:28:41 maintainability_rating 50		nerabilities like error handling or input
	Showing 1 to 5 of 5	entries	08/03/2018 13:08:11	Active	class_complexity : 100 maintainability_rating : 1 threshold : 50	Previous 1 Next

The recommendations table can be ordered by any of its columns and the results can also be filtered by searching for some text.

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Measure Platform												
Home / Projects / Measu	re Platform											
	Show 10 • ent	tries					Search:	developer				
Project Overview	Last Updated î↓	Machine 11	State ↑↓	Category 斗	Role î↓	Recommendation			11			
Phases	Wed May 23 2018 18:14:20	Software Modularity	Active	Code Quality	Developer/Designer	Reinforce the modul allow more extensibl adaptable code.						
	Wed May 23 2018 18:14:20	Code Reliability	Active	Code Quality	Developer/Tester	There is unsolved ma review and look for u	ajor issues in the untested scenari	code, make a coo os	de			
Notifications (4)	Showing 1 to 2 of 2	entries (filtered fr	om 5 total e	ntries)				Previous 1	Next			
¢ Configuration												