



CRASHING NICELY



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Works for Techpaladin

Working on KDE Linux, Plasma, Frameworks

Crash report connoisseur

Crashing Nicely by sitter@kde.org

How to Crash

Poorly
Nicely

Poorly 👎

Terminate process
No user visible sign or means of reporting
Boo

Nicely 👍

Terminate process
Help user help you

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How to Handle

Just-in-Time
Post-mortem

Just-in-Time Flow



Segfault
Signal Handler
(Fork)
Diagnose/Report/etc

Just-in-Time Problems

Racing threads
Locked resources (e.g. open fds)
Poor reliability

Just-in-Time Flow

Segfault
Signal Handler **in a thread**
(Fork)
Diagnose/Report/etc

Just-in-Time Problems

Racing threads
Locked resources (e.g. open fds)
Poor reliability

Post-mortem Flow

Segfault
Signal Handler
Kernel Core Handling/Handler
(rest of the stuff happens separately)

Intermission: Core Pattern

`/proc/sys/kernel/core_pattern`

Post-mortem problems

Not nearly as flexible
Platform concern

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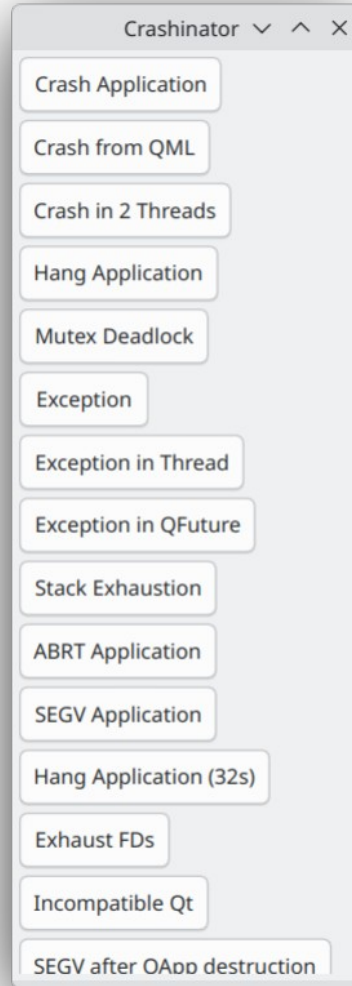
How to Crash Nicely

(the KDE Plasma way)

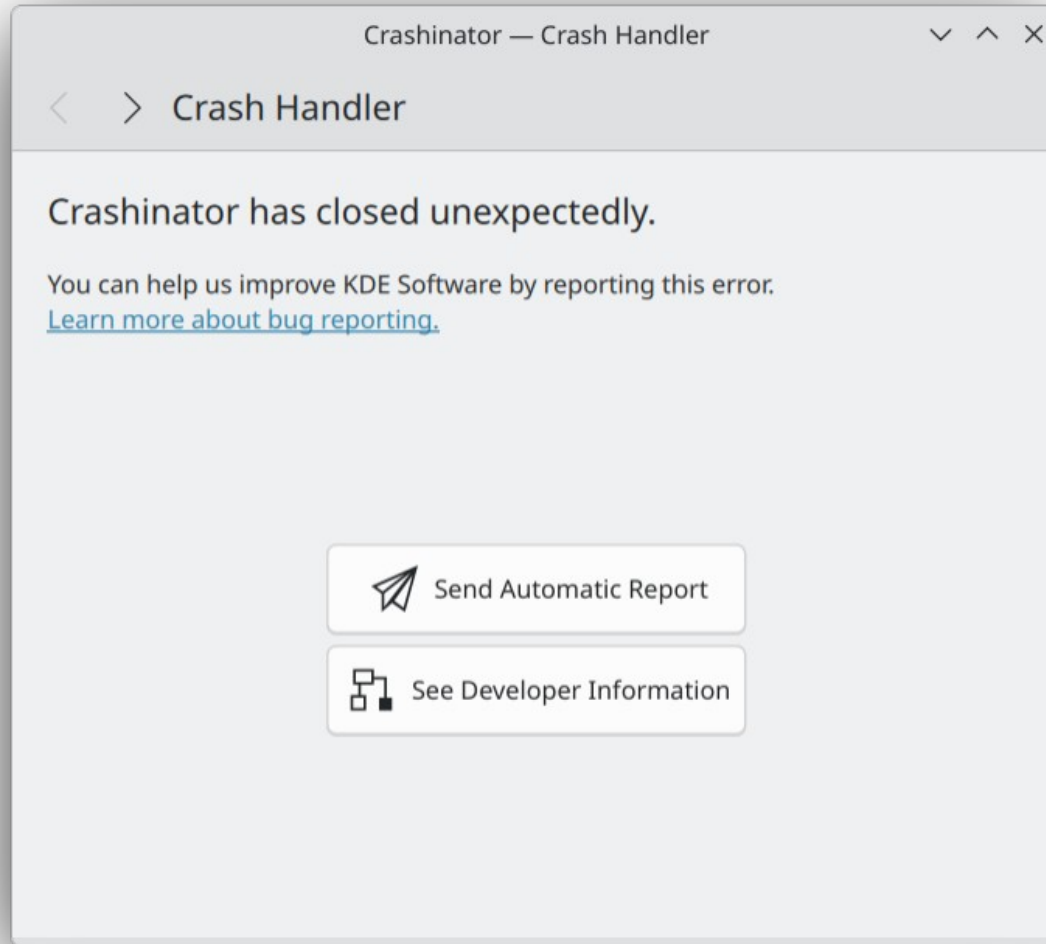
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LIVE DEMO

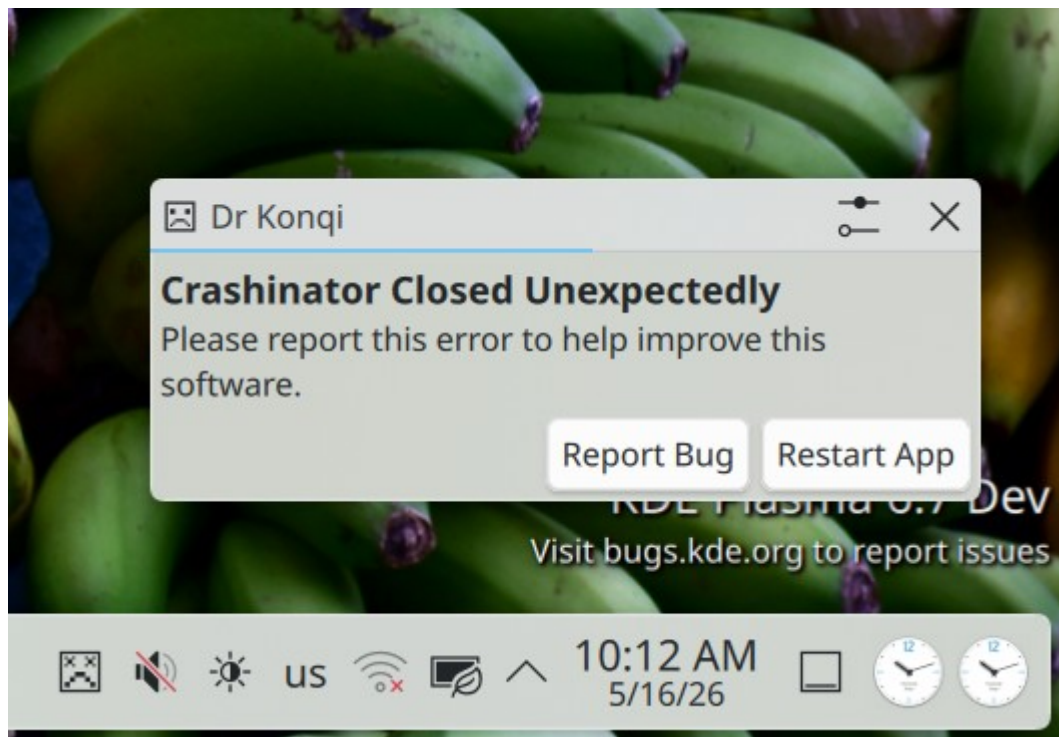
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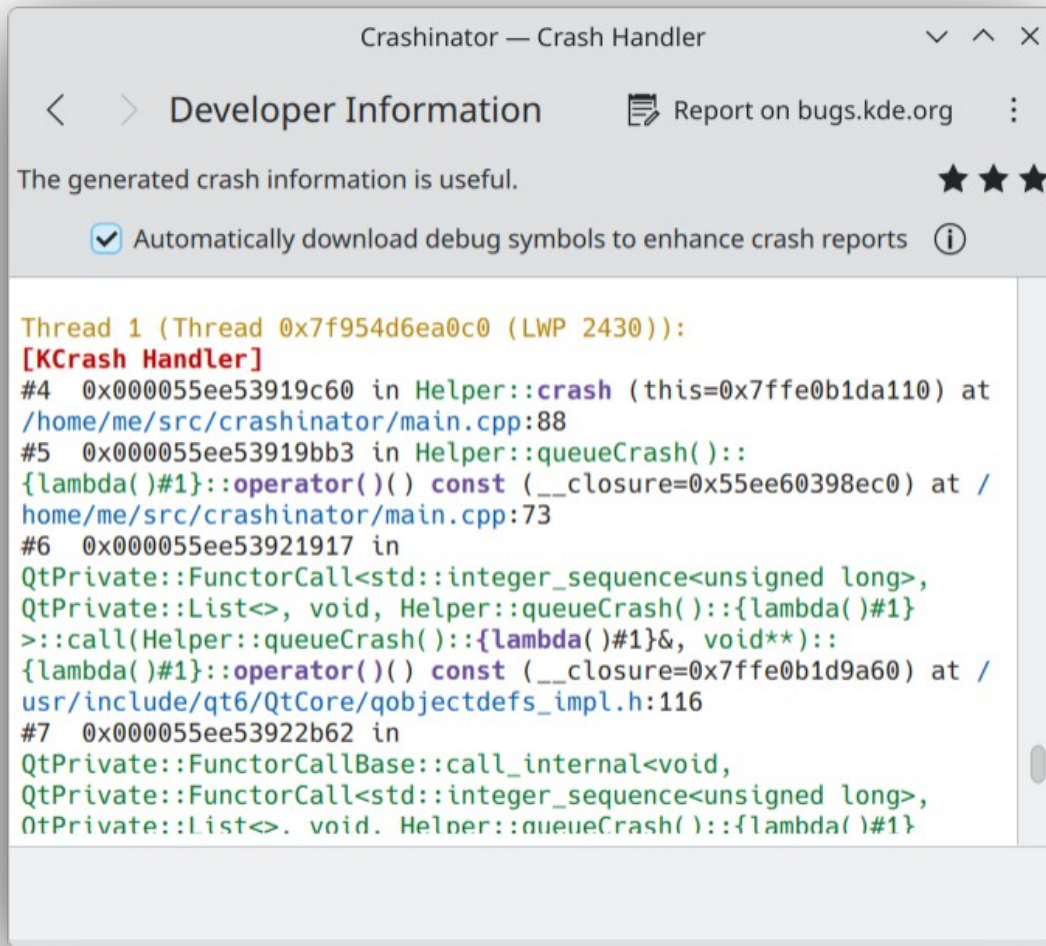
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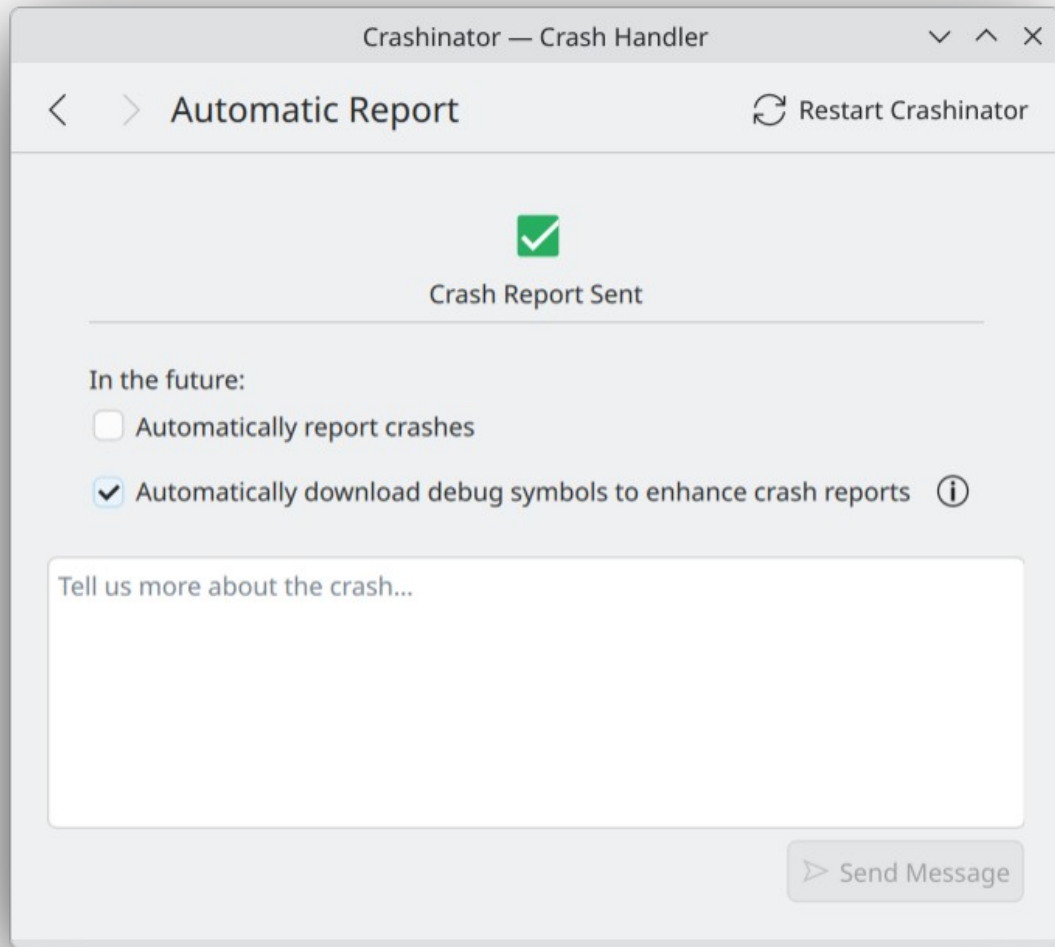
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Segfault 

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Signal Handler

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KCrash if KDE Application

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Metadata

Coredump 🍌

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Kernel → Core Handler

Coreddumpd

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More Metadata!

Journal

Need something to react to the journal data

Introducing DrKonqi

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drkonqi-coredump-processor

drkonqi-coredump-launcher

drkonqi

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User does stuff

drkonqi-sentry-postman 

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Sentry (Crash Tracker)

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Recap

Crash Handling 🤖

Let the platform help you
Be quick about it!

Crash Reporting

Fail early if possible
Guide the User
Make it as convenient as possible

Crash Collection

A bespoke tracking system is worthwhile
Bug tracker can work too
You can also combine multiple systems ;)

How To Crash Nicely

Segfault → Signal Handler brief or none → Kernel
Coredump Handler → coredumpd → journald

Excavate coredump → Have user file a report →
Collect data → Recover app state if possible

Don't forget to fix the crash 

Thank you! 