hex-rays

IDA PRO – the state-of-the-art binary code analysis tool

IDA Pro is the flagship product of Hex-Rays, the software provider in reverse engineering. Being an interactive and programmable disassembler and debugger, IDA Pro provides excellent quality performance on different platforms and is compatible with many processors. IDA Pro has become the de-facto standard for the analysis of hostile code, vulnerability research and commercial off-the-shelf validation.

IDA Pro comes with different types of licenses: Named, Computer, Floating and Educational license to meet different business' scales and demands of usage.

A disassembler


A debugger


interactive


Programmable

Key features

Multi-processor Disassembler

- Disassembler modules for a large number of processors. The free SDK even allows you to run your custom disassembler;
- Full and extensible interactivity;
- Programmable: IDA can be extended in line with user's own requirement with IDC or IDAPython;
- Open plugin architecture: external plugins enable extension of IDA's capability;
- FLIRT technology (Fast library identification and recognition technology);
- Code graphing;
- Lumina server holds metadata with a large number of well-known functions;

Multi-target Debugger

- The debugger adds the dynamic analysis of the information collected statically by the disassembler;
- Offers all the features expected from a debugger and more: "remote" function and tracking. Remote debugger: for Windows, Linux, Mac OS X, and other machines in any combination;

More features and upgrades are introduced along with new IDA version releases!

IDA 8.3 Highlights

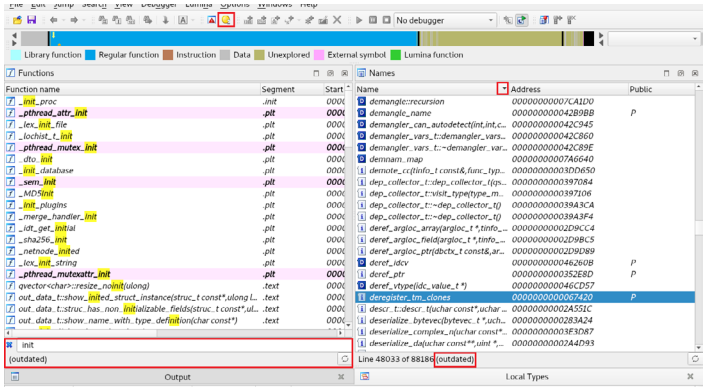
IDA64 support for (32-bit) .idb files

We have further improved IDA64 so that it can be a complete replacement for the legacy 32-bit IDA in all situations. To ease the migration, we implemented a feature to convert the legacy .idb databases to .i64 ones (code-named CVT64).

The 32-bit IDA is now considered deprecated and will likely go away at some point.

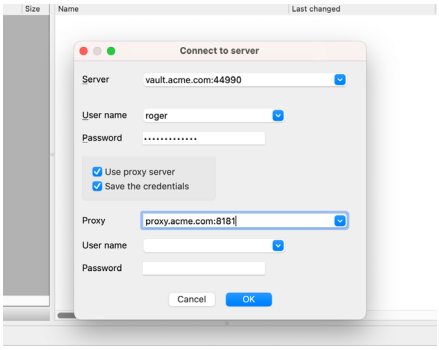
UX improvements

Improved UI performance on some strategic fronts. For example, slower autoanalysis of Dyld Shared Cache's due to the "Functions" window (whether filtered or not) are a thing of the pas

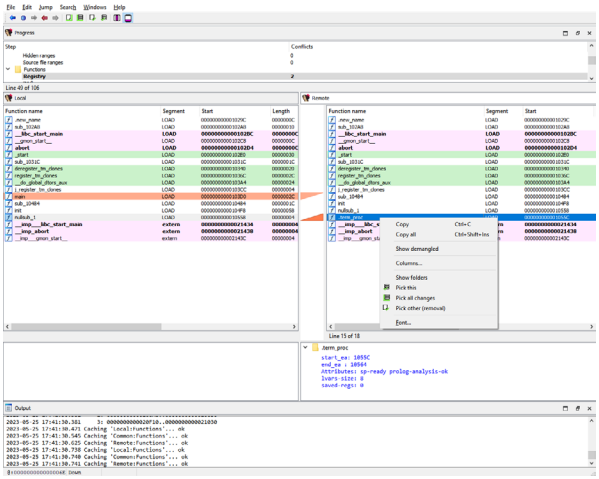


IDA Teams

- It is now possible to specify a proxy for connecting to the Vault server.



- During a merging session, you can pick a chunk to resolve a conflict using context menu instead of the toolbar.



- The licensing logic was improved:
  - Previously, when some licenses expired, the Vault server would refuse to work until the number of users was reduced to the count of the active licenses. Now it will continue working but simply refuse new license checkouts in such situation.
  - IDA was relying on the local ida.key file and displaying the expiration date from it, even if the license was updated on Vault server. Now IDA Teams does not use the local ida.key at all but only information from the server.

IDA Educational

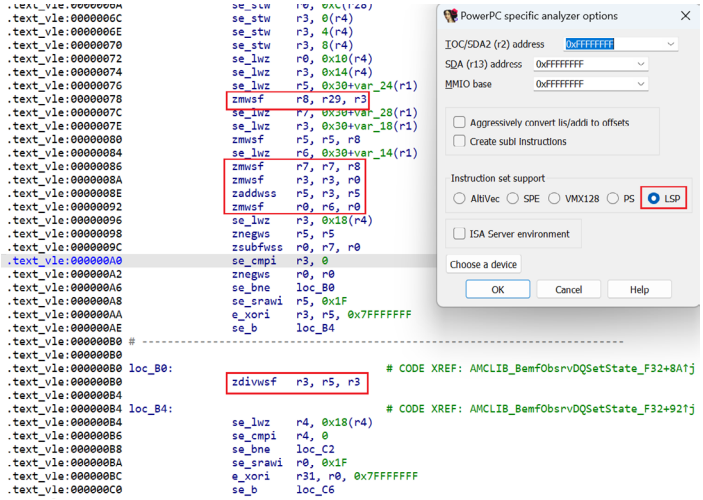
Our free offer for educational institutions gained a cloud decompiler for x86/x64 and the file size limit has been lifted.

IDA Home

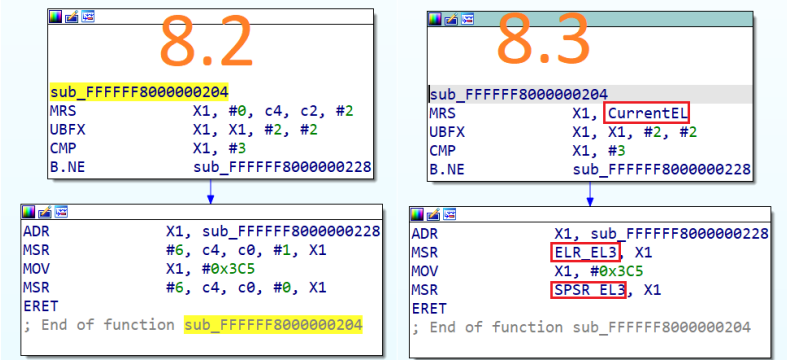
The decompiler's IDA Python API (ida_hexrays module) now works with the cloud decompilers available in IDA Home

Processor module improvements

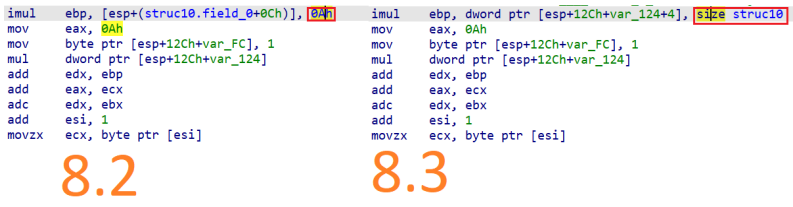
- PPC processor module gained support for the LSP extension, as well as the new Power ISA 3.1 instructions



- ARM module now shows symbolic names for well-known ARM64 system registers



- MIPS and RISC-V modules have improved register value tracking which should lead to better analysis and more discovered cross-references
- DEX module and loader now support the new features added in the DEX 039 format (Android 9 and 10)
- PC: instructions with three or more operands (such as imul or vinsertps) can support properly distinct types for each operand. In fact, this applies to instructions with three or more operands in all processors.



Loaders

- ESP: a new loader, supporting the common file format used for the Espressif ESP line of chips
- Cortex-M: a new loader for Cortex-M raw binary firmware, supports ARMv6-M to ARMv8-M and load base autodetection
- ELF: the loader now parses PPC-specific sections with details about the instruction set used, and configures the processor module automatically

Plugins

- golang: added support for Go 1.20 and improved detection and parsing of Go metadata
- Goomba, our open-source plugin for MBA deobfuscation is now shipped as part of IDA
- DWARF: loading of DWARF debug information has been sped up significantly, especially for big files
- OBJC: added support for Objective-C optimizations introduced in iOS16 (stubs for objc_msgSend with common selectors and custom wrappers for retain/release)

Decompiler

- it is now possible to disable some optional optimizations performed by default. This may be useful for plugin writers doing their own analysis on microcode
- multiple fixes were done for the outlined functions support initially introduced in 8.2
- improved detection of call arguments in multiple situation, including detection of return value passed via X8 on ARM64

Full changelist: https://www.hex-rays.com/products/ida/news/8_3/

Previous releases

IDA Version 8.2 – Service Pack 1 - Release date: 24th January 2023

Highlights: This Service Pack of IDA 8.2 is primarily a bugfix release.

Full changelist: https://www.hex-rays.com/products/ida/news/8_2sp1/

IDA Version 8.2 - Release date: 15th December 2022

Highlights: 32-bit support in IDA64, Processor modules improvements, Swift, picture_search plugin, UI candy and much more!

Full changelist: https://www.hex-rays.com/products/ida/news/8_2/

IDA Version 8.1 - Release date: 6th October 2022

Highlights: Private Lumina server, New icons, Golang regabi support, Sunsetting IDA for 32-bit binaries and much more!

Full changelist: https://www.hex-rays.com/products/ida/news/8_1/

IDA Version 8.0 – Service Pack 1 - Release date: 29th August 2022

Highlights: The Service Pack 1 of IDA 8.0 is primarily a bug fixes release that provides fixes for a few errors that might affect many users.

Full changelist: https://www.hex-rays.com/products/ida/news/8_0sp1/

IDA Version 8.0 - Release date: 29th July 2022

Highlights: introduced IDA Teams, iOS 16 dyld shared cache support, Outlined functions Golang 1.18, New de-compiler: ARC, Better firmware analysis thanks to the function finder plugin (patfind), FLAIR pattern generator (makepat) and much more!

Full changelist: https://www.hex-rays.com/products/ida/news/8_0/