This poster discusses the development of Black Squirrel GNU/Linux. Black Squirrel was built to serve as a tool for the 21st century library, museum, and archive. The operating system provides cutting edge open source software for makerspaces, gamerspaces, and hackerspaces, and assists librarians and information professionals with:

- Data Preservation
- Data Curation
- Records Management
- Transcription
- Data Preservation

makerspaces, gamerspaces, and hackerspaces, and provides cutting edge open source software for:

- library, museum, and archive.

Black Squirrel was built to serve as a tool for the 21st century of Black Squirrel GNU/Linux. Black Squirrel is preinstalled with FOSS games and STEAM. It works well with many 3D printers and scanners and comes preinstalled with Integrated Development Environments (IDE) for robotics and for building applications.

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- TOR and Ice Wesal are preconfigured with OER bookmarks for library systems and library instruction and measures the impact of those services.
- CI-AI (Consultation, Instruction, Assessment and Impact) is a tool that uses machine learning to assist reference and instruction librarians with assessing consultations and library instruction and measures the impact of those services.
- Squirrel Burrow is an open source repository solution for digital content that is built on D-Space.

**Black Squirrel Core Apps**

- RADAR (Records Acquisition, Destruction, and Request) is a knowledge-based multi-agent expert system that serves as a tool for records managers, archivists, and other facilitators that manage the lifecycle of their respective organization’s records.
- CI-AI (Consultation, Instruction, Assessment and Impact) is a tool that uses machine learning to assist reference and instruction librarians with assessing consultations and library instruction and measures the impact of those services.

**Open Source Integrated Library Systems:**

- Links to popular and recommended open source integrated library systems

**Open Educational Resources (OER):**

- Tor and Ice Wesal are preconfigured with OER bookmarks for library and museum researchers.

**Makerspaces, Hackerspaces and Gamerspaces:**

- Black Squirrel is preinstalled with Integrated Development Environments (IDE) for robotics and for building applications.
- VTami II and TUX-Face is an epistemic agent that performs knowledge-intensive analysis of Unix/Linux and MAC OS computer systems log files in order to determine how well the system is operating.