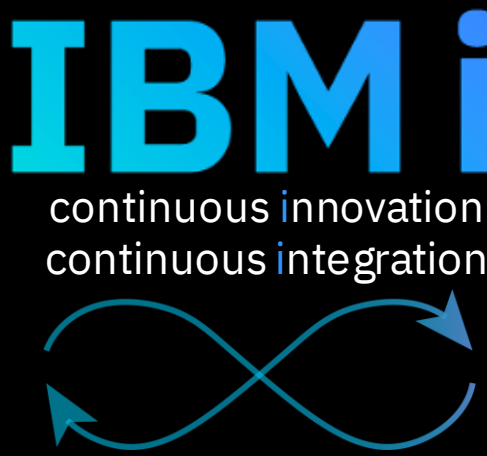
Automating Builds
in Git on IBM i



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Agenda

IBM i
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- The Modern Development Lifecycle with Git
- Git Tooling and Automation
- Unlock Automated Builds with ibmi-ci
- ILE Dependency Analysis with Source Orbit
- Demo

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The Modern Development Lifecycle with Git

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What Does Modern Development Look Like?

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Git Repository

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Local Development Experience

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Build Server

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Git Tooling and Automation

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Available Tools

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Unlock Automated Builds with ibmi-ci

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Overview

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CLI Usage

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GitHub Action Usage

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ILE Dependency Analysis with Source Orbit

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Overview

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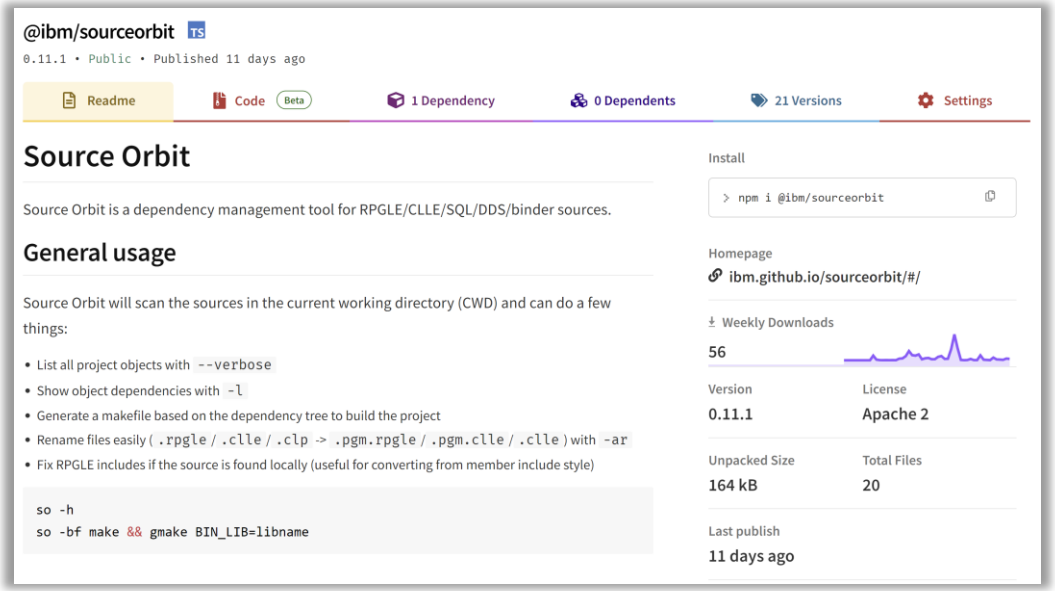
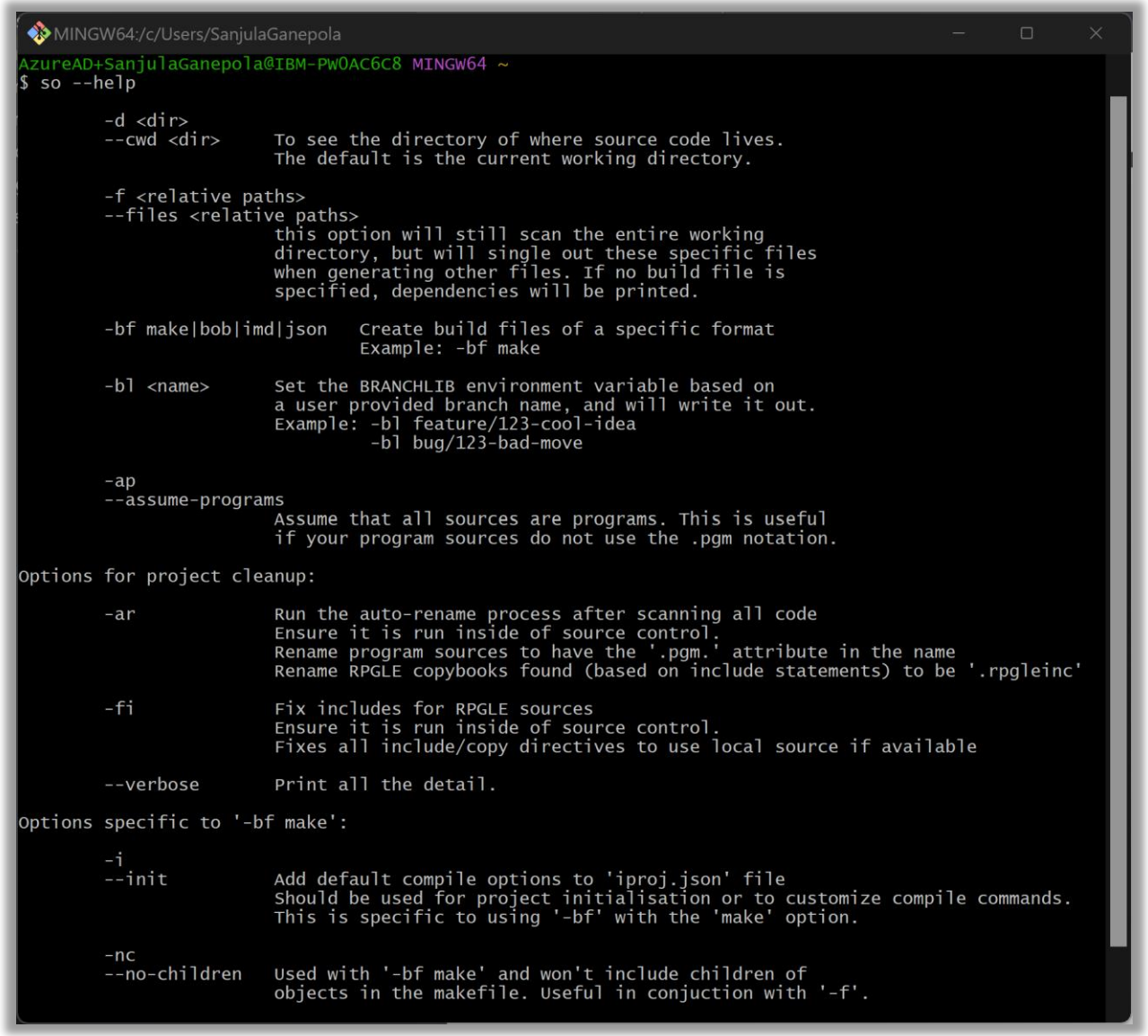
- A dependency management CLI tool
  - Build dependency tree for RPGLE, DDS, SQL, CL, etc.
  - Generates impact analysis information
  - Generate scripts to automate builds
  - Clean up project





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Let’s Dissect a Dependency Tree

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There is a Source Orbit VS Code Extension for Visualization!

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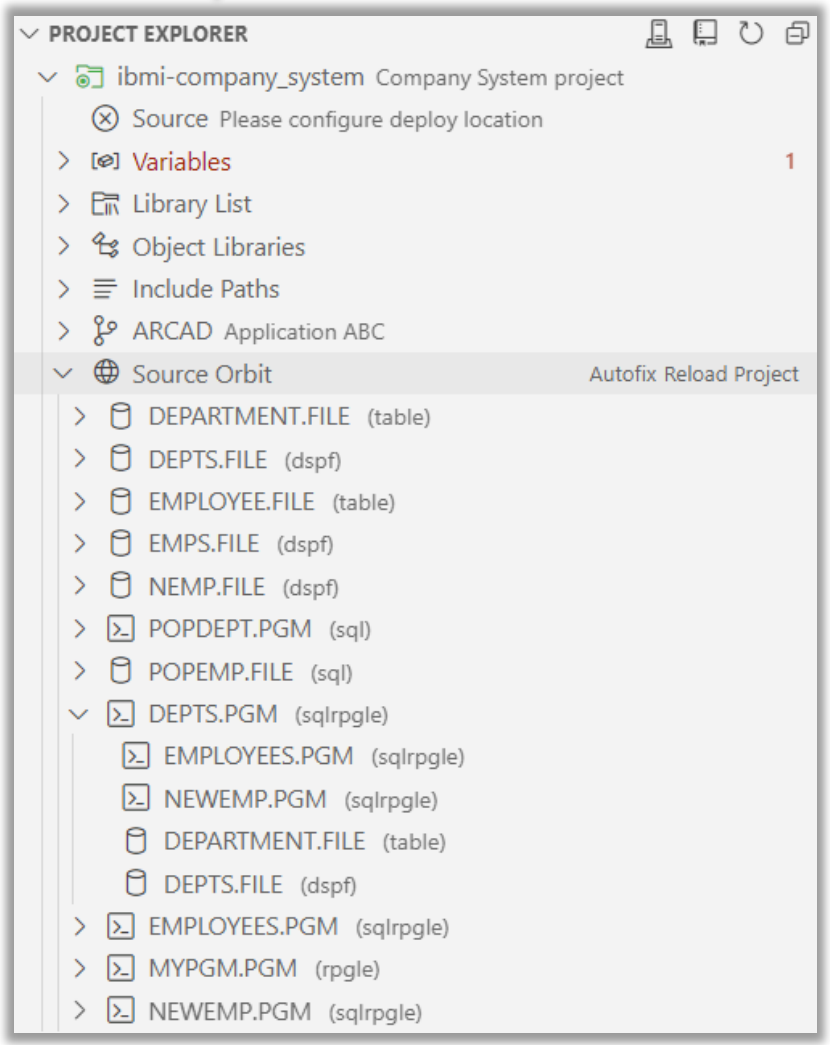
- Builds on top of IBM i Project Explorer
- Visulize dependency tree

Source Orbit



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Impact Analysis...What Objects am I Affecting?

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Repository Cleanup

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Integrated into IBM i Project Explorer

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CVTSRCPF from BOB

QSYS members in source physical files

↓

Properly encoded, terminated, and named source files in an IFS directory

↓

Download to local project

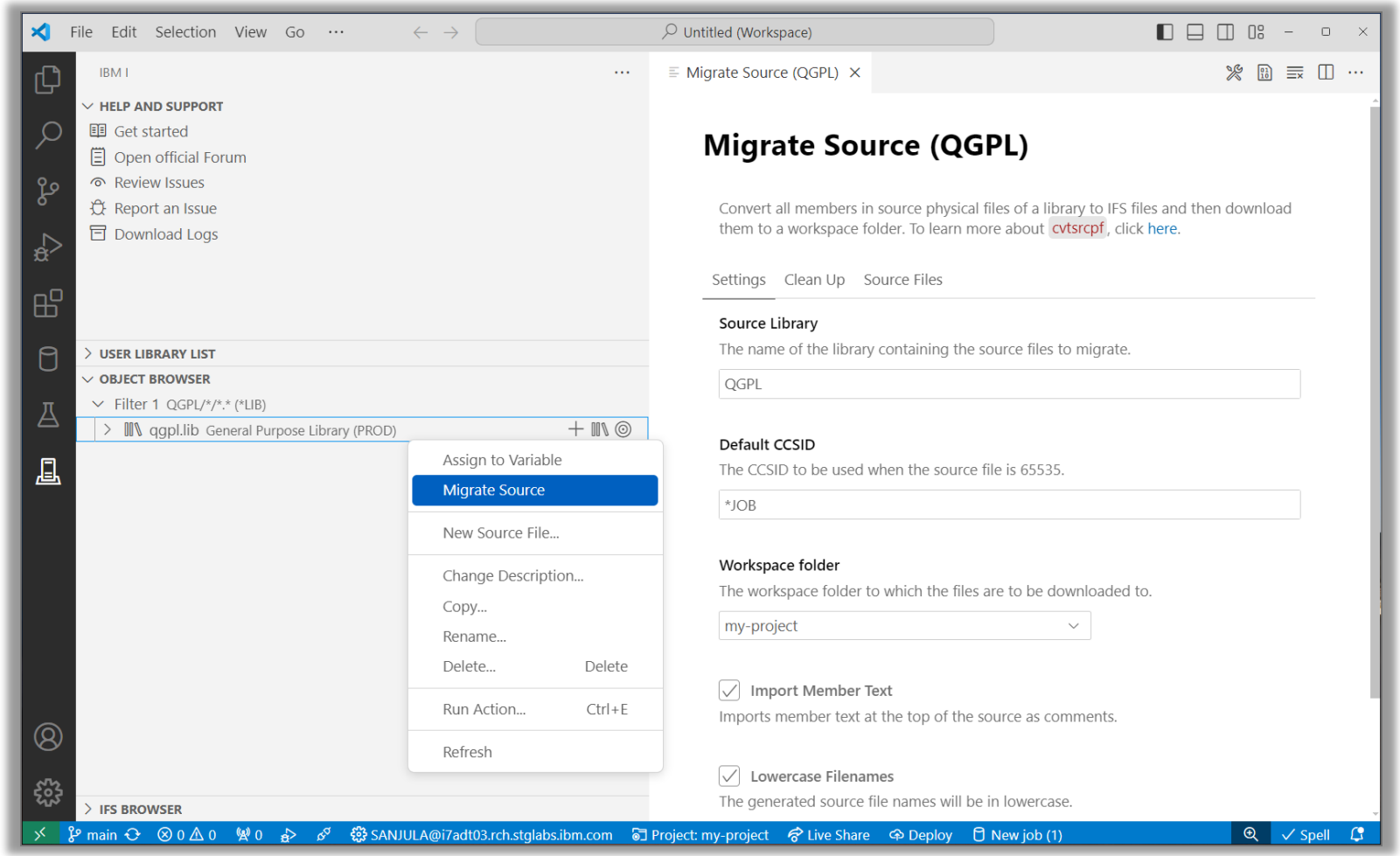
↓

Source Orbit

Rename extensions

↓

Convert includes/copy directives to Unix style paths



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CLI Usage

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Usage in GitHub Action

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Demo

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Important Links

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ibmi-ci

- NPM https://www.npmjs.com/package/@ibm/ibmi-ci
- GitHub Repository https://github.com/IBM/ibmi-ci

Source Orbit

- Documentation https://ibm.github.io/sourceorbit/#/
- GitHub Repository https://github.com/IBM/sourceorbit

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IBM i Home Page: https://www.ibm.com/it-infrastructure/power/os/ibm-i (find link to Forrester Study and updated IBM i Strategy Whitepaper) IBM Strategy Whitepaper: https://www.ibm.com/it-infrastructure/us-en/resources/power/i-strategy-roadmap/ IBM Client Success: https://www.ibm.com/it-infrastructure/us-en/resources/power/ibm-i-customer-stories/ Support Life Cycle: https://www.ibm.com/support/lifecycle/ License Topics: https://www-01.ibm.com/support/docview.wss?uid=nas8N1022087 Fortra IBM i Marketplace Survey https://www.fortra.com/resources/guides/ibm-i-marketplace-survey-results	 @IBMSystems @COMMONug @IBMChampions @IBMSystemsISVs @IBMiMag @ITJungleNews @SAPonIBMi @SiDforIBMi	#PowerSystems #IBMi #IBMAIX #POWER9 #LinuxonPower #OpenPOWER #HANAonPower #ITinfrastructure #OpenSource #HybridCloud #BigData

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