

Novinky od Bentley

iNGs Info Deň 2023

Liptovský Mikuláš / Pezinok

Tomáš Staněk

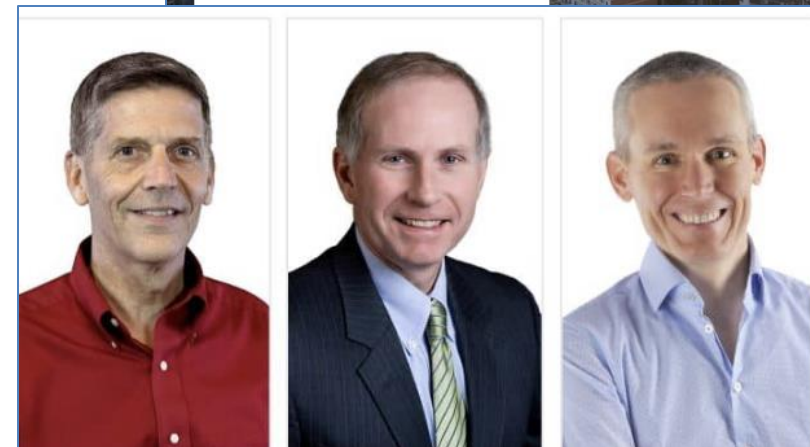
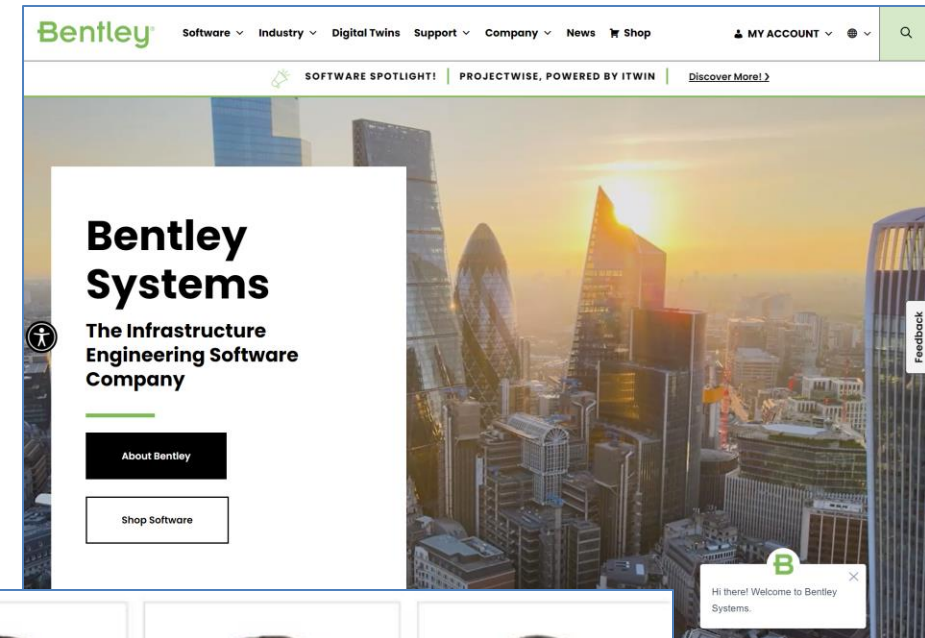


Bentley 2023 (2020-2021-2022)

- Bentley se stalo veřejně obchodovatelnou společností
- MicroStation 2023, ProjectWise 2023, ... 23.xx.xx.xx
- Digitální éra v infrastruktuře
 - MicroStation (3D), ProjectWise (CDE)
 - Open Building.Site.Road.Rail
 - Open Ground, Tunnel, Substation
- iTwin – Digitální dvojče

Bentley 2023

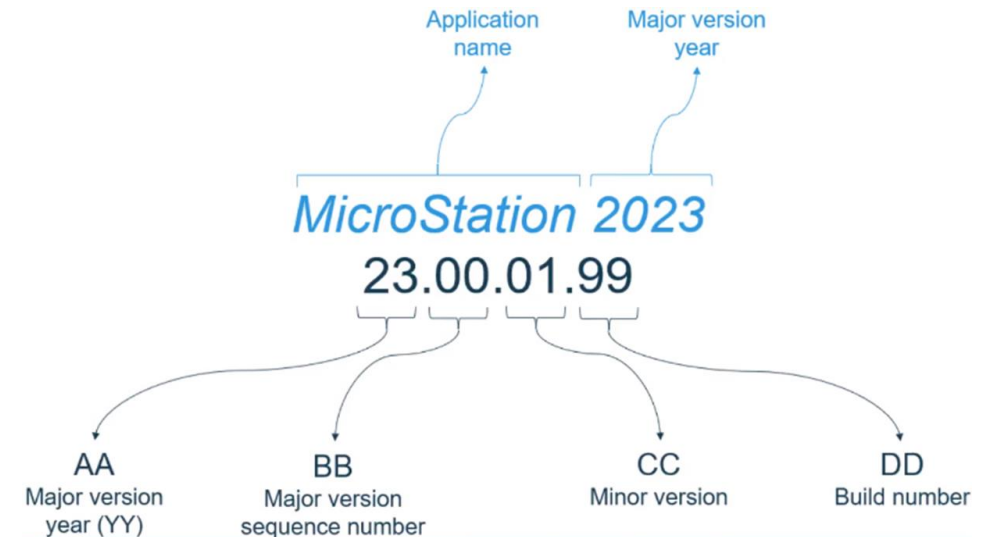
- Obměna kádrů včetně top mngmnt
- Zaměření na infrastrukturu
- Nové akvizice
 - BCDE, EASYPOWER, SEEQUENT, ...
- Virtuosity – licence
- Cohesive – cloudové služby
- Nový akademický program



MicroStation 2023



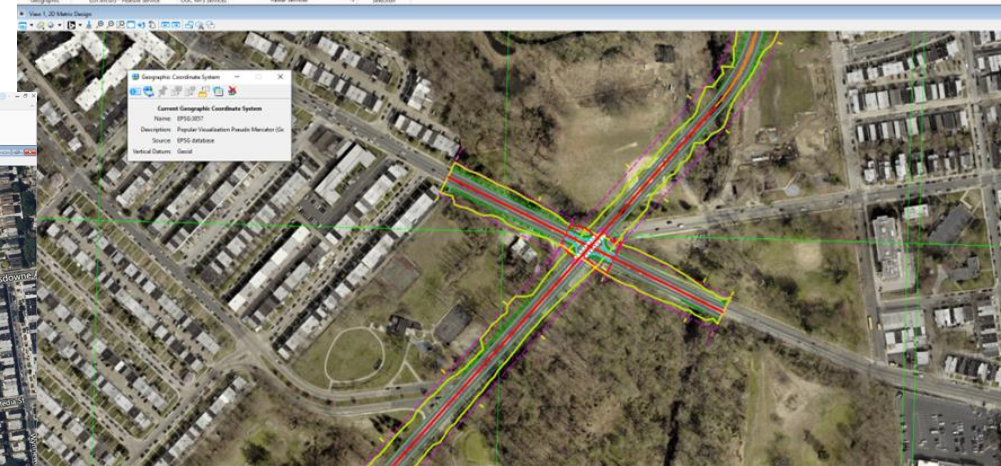
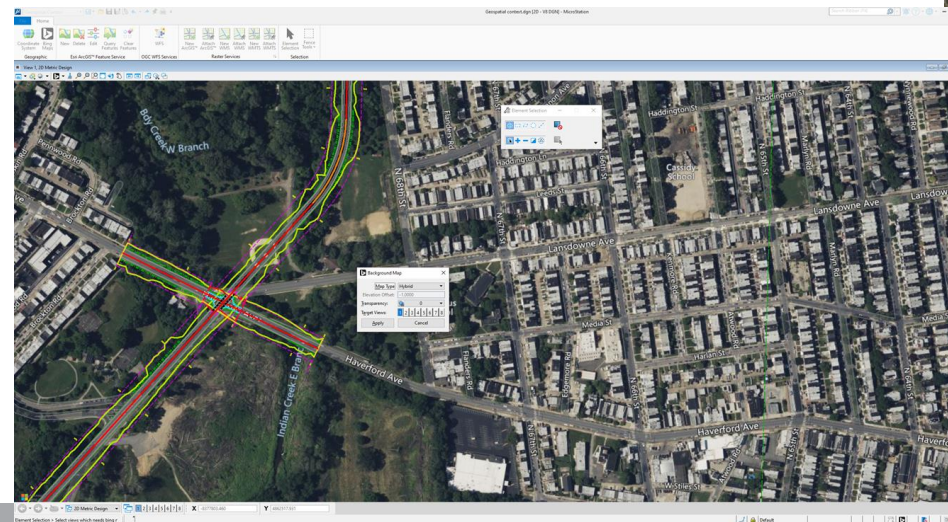
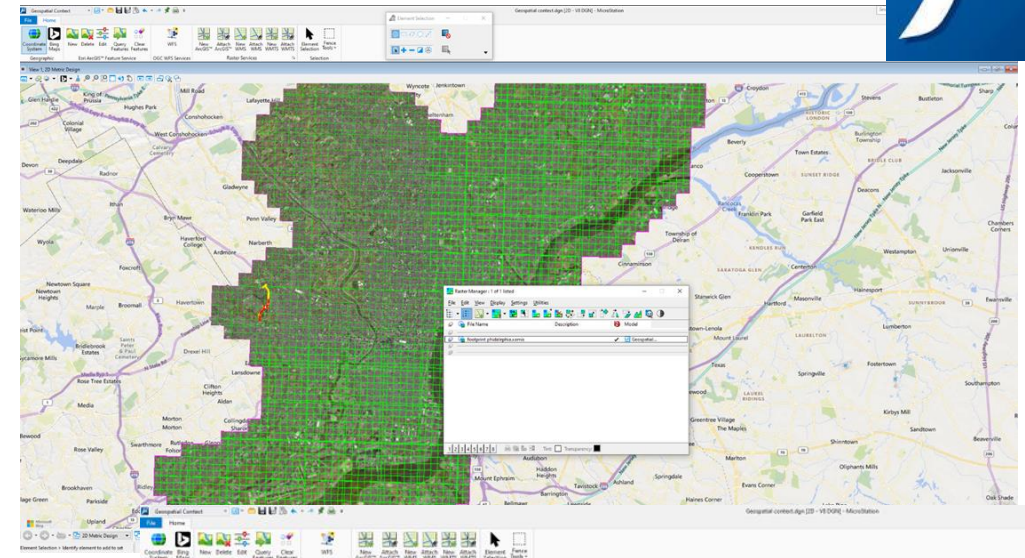
- Konsolidace označení verzí produktů
 - dříve 10.xx.xx.xx
 - nově 23.xx.xx.xx (... 24.xx...)
- Certifikace pro Windows11
- Side by side installation
 - umožní instalaci vedle starší verze
- Další uživatelská vylepšení
 - DGN Audit Tools
 - Položky (ItemTypes), iModel, ...



MicroStation 2023



- Geospatial Context Workflow
 - Esri ArcGIS™ REST Feature Service Direct Integration
 - Esri ArcGIS™ REST Map Service Direct Integration
 - Bing Maps UX Enhancement



MicroStation 2023



- Aktuálně jako Technology Preview
- K dispozici v průběhu 6 měsíců

A screenshot of the Bentley MicroStation Help website. The page title is "New and Changed in MicroStation 2023". The left sidebar shows a navigation menu with "What's New?" expanded, listing various update versions from 10 to 2023. The main content area includes a search bar at the top right, a breadcrumb trail "Home > What's New? > New and Changed in MicroStation 2023", and a sub-heading "Issue Resolution Service enhancements:". Below this is a screenshot of a "Move ACS" dialog box with a dropdown menu showing "ACS: View 1:Top". At the bottom, there is a section titled "About Technology Preview Features" with a note explaining that these features are provided as Technology Preview and may be discontinued without notice.

Bentley MicroStation Help

Enter search terms Search

Home > What's New? > New and Changed in MicroStation 2023

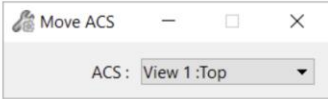
What's New?

- New and Changed in MicroStation 2023
- New and Changed in MicroStation CONNECT Edition Update 17
- New and Changed in MicroStationCONNECT Edition Update 16
- New and Changed in MicroStation CONNECT Edition Update 15
- New and Changed in MicroStation CONNECT Edition Update 14
- New and Changed in MicroStation CONNECT Edition Update 13
- New and Changed in MicroStation CONNECT Edition Update 12
- New and Changed in MicroStation CONNECT Edition Update 11
- New and Changed in MicroStation CONNECT Edition Update 10

New and Changed in MicroStation 2023

This topic summarizes the new features and enhancements in MicroStation 2023.

Issue Resolution Service enhancements:



ACS: View 1:Top

About Technology Preview Features

Some features in this update are provided as Technology Preview.

Note: Take advantage of this Technology Preview, a non-public software service and/or application for evaluation purposes only. Please use the Technology Preview in your normal business environment as needed to form an opinion concerning the performance of the Technology Preview. Bentley personnel would welcome your valued feedback concerning the performance of the Technology Preview as you evaluate the capabilities. Please be aware that at some point, you may receive notice from Bentley that such use must cease or this Technology Preview will become unavailable to you. As we receive feedback, this Technology Preview may also be enhanced, updated or also discontinued without notice. As a Technology Preview, it is provided to you "as-is" without the benefit of any Bentley warranty, indemnity or support obligation.

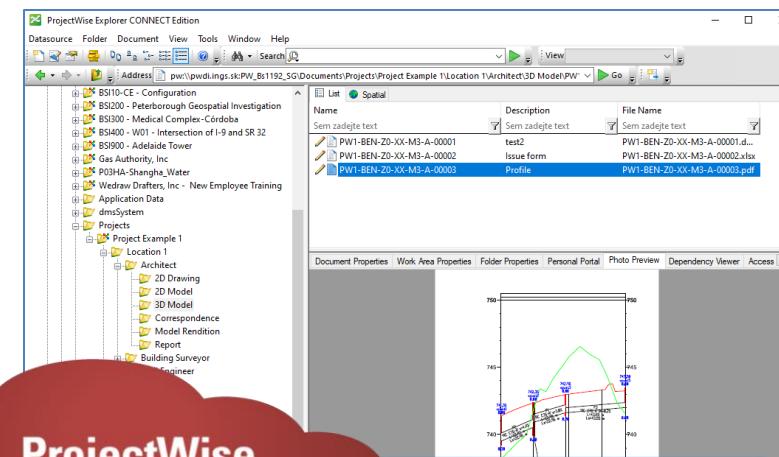
ProjectWise 2023

- Konsolidace označení verzí produktů
 - dříve 10.xx.xx.xxx
 - nově 23.xx.xx.xxx (... 24.xx...)
- Konsolidace označení klientů
 - PW 365 VISA → PW Manage
 - PW DI VISA → PW Engineer
 - PW 4D Review → PW Validate
- OpenID a řada dalších novinek...

| Capabilities | ProjectWise Visa Level (Legacy) | | | ProjectWise, powered by iTwin Enterprise Tier i5 | | |
|---|---------------------------------------|-----------------------|---------------------|--|----------|----------|
| | 365 | Design Integration | 4D Design Review | Manage | Engineer | Validate |
| Auditable document control for infrastructure design | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Microsoft Office work-sharing for infrastructure design | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Issue review and approval with PDF | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Standards based (ISO19650) design workflows | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Project Insights | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Manual PDF generation and plotting | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| iTwin Viewing | | | | ✓ | ✓ | ✓ |

ProjectWise CONNECT 2020-21-22

- Nový přístup k datům PW
 - PW Explorer
 - PW Web
 - PW Drive
- Nové služby
 - Připomínkování
 - Manžerské přehledy
 - PDF Markup
 - Prohlížeč 3d modelů
 - Odevzdání digitální dokmnt



Nový bezpečný přístup k datům PW

PW Explorer

| Název | Popis | Název souboru |
|------------------------------|------------------------------|------------------------------|
| Obrázek SO2022.jpg | Obrázek SO2022.jpg | Obrázek SO2022.jpg |
| profil 2022.pdf | profil 2022 | profil 2022.pdf |
| profil 2022.xfdf | | profil 2022.xfdf |
| Set SO2022 | CAT3 protokoly | Souhlas s upravou SO2022.msg |
| Souhlas s upravou SO2022.msg | Souhlas s upravou SO2022.msg | Technická revize SO2022.docx |
| Technická revize SO2022.docx | Technická revize SO2022.docx | Technická revize SO2033.docx |
| Technická revize SO2033.docx | Technická revize SO2033 | Technologie SO2022.dgn |
| Technologie SO2022.dgn | Technologie SO2022.dgn | test_PW.pdf |
| test_PW.pdf | test_PW | test_PW.xfdf |

PW Web

| Name | Description | State |
|--------------------|----------------|-------------------|
| Obrázek SO2022.jpg | Obrázek SO2... | sdíleno - kont... |
| profil 2022.pdf | profil 2022 | sdíleno - kont... |
| profil 2022.xfdf | | sdíleno - kont... |
| Set SO2022 | CAT3 protokoly | sdíleno - kont... |

| Details | Attributes | Audit trail |
|-------------------|------------|----------------|
| 17. 3. 2021 9:29: | | Sent to Folder |
| 15. 3. 2021 8:17: | | Sent to Folder |
| 25. 1. 2021 9:35: | | Sent to Folder |
| 14. 1. 2021 8:52: | | State Change |

MS Teams

| Name | Description | State | Version | File Name | HIP |
|------------------|----------------|----------------|---------|----------------|---------------|
| Obrázek SO2... | Obrázek S... | sdíleno - k... | | Obrázek S... | INGs kontr... |
| profil 2022.pdf | profil 2022 | sdíleno - k... | | profil 2022... | INGs kontr... |
| profil 2022.xfdf | | sdíleno - k... | | profil 2022... | INGs kontr... |
| Set SO2022 | CAT3 proto... | sdíleno - k... | | | |
| Souhlas s upr... | Souhlas s u... | sdíleno - k... | | Souhlas s u... | INGs kontr... |
| Technická rev... | Technická r... | schváleno | B | Technická r... | INGs kontr... |
| Technická rev... | Technická r... | sdíleno - k... | A | Technická r... | INGs kontr... |
| Technologie ... | Technologi... | schváleno | B | Technologi... | INGs kontr... |
| test_PW.pdf | test_PW | sdíleno - k... | F | test_PW.pdf | INGs kontr... |
| test_PW.xfdf | | sdíleno - k... | E | test_PW.xfdf | INGs kontr... |

Nové služby

- Prohlížeč 3d modelů (30+ formátů)
- Připomínkování, změnová řízení
- Validace dat a detekce kolizí
- ...

↔ Interchange Formats

SAT
ACIS (.sat)

CGM

DXF

FBX

i-model

IFC

IGES (.igs)

JT

Land XML

OBJ

MIF / MID

Parasolid (.x_t)

Shapefile (.SHP)

STEP (.stp)

STL

VUE

Third Party Design Applications

3D Studio (.3ds)

AutoCAD

AVEVA Diagrams

AVEVA EVERYTHING3D

AVEVA E3D

AVEVA PDMS

AVEVA PID

Civil 3D

Intergraph Smart 3D

Intergraph Smart P&ID

Revit

Rhino (.3dm)

SketchUp

Bentley Design Applications

PLANT Modeler

MicroStation CONNECT Edition

MicroStation V8i

OpenBuildings Designer

OpenPlant Modeler

OpenPlant PID

OpenRail Designer

OpenRoads Designer

OpenSite Designer

ProjectWise Web interface showing a file tree with BIM model files and a 3D model view. Red arrows point from the file tree to the 3D model.

Design Review software interface showing a 3D model with a context menu, a tooltip, and an issues list.

Context Menu:

- Open Frontstage
- Main View
- iModel Index
- SafetlBase
- Clash Detection
- Validation

Tooltip:

Fasádní zateplení 150 mm - KRAJNÍ 1
Category: Walls
Model: Objekt 2021.rvt

Issues List:

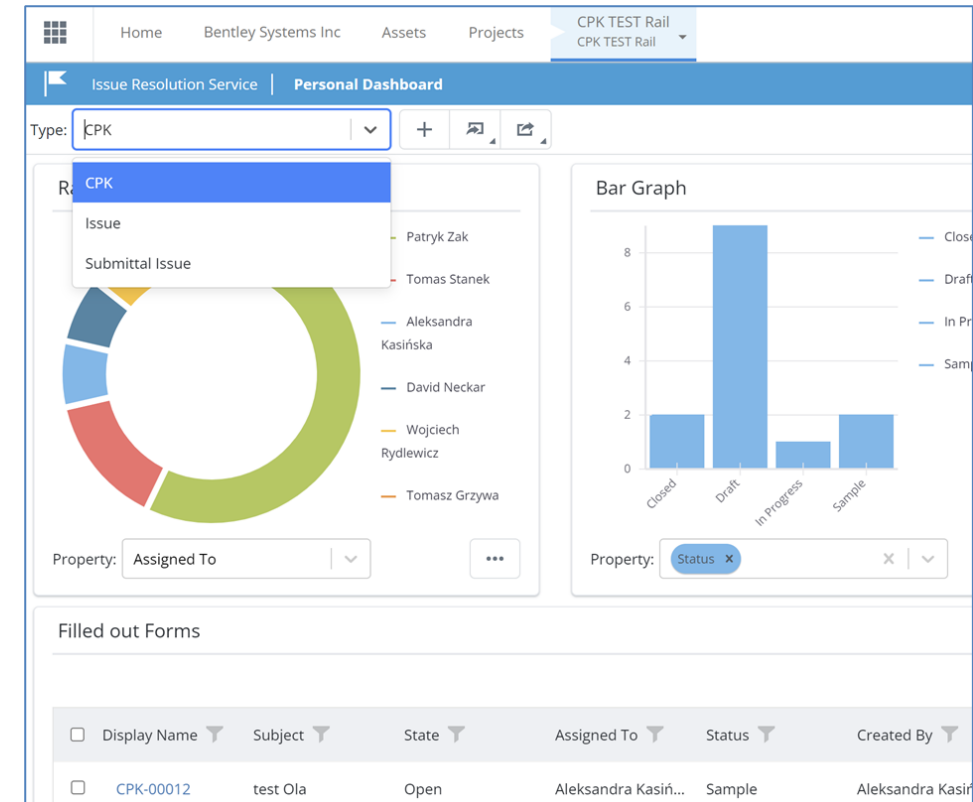
| Issue ID | Issue Description | Author | Date |
|--------------|---|-----------------|-------------|
| P-DSP-00017 | Chybné napojení ... | Tomas Raellianu | 17. 5. 2022 |
| P-DSP-00016 | Fasádní palubky | Tomas Raellianu | 16. 5. 2022 |
| P-DSP-00015 | Upravit napojení ... | Tomas Raellianu | 16. 5. 2022 |
| P-DSP-00014 | Změna členění o... | Tomas Stanek | 8. 9. 2021 |
| ISSUE-00012 | Špatný materiál, ... kontrola projectwise | | 4. 6. 2021 |
| P-PDPS-00005 | Připomínka VPX | Tomas Stanek | 7. 5. 2021 |
| AD-00003 | Technická zpráva | Tomas Stanek | 26. 4. 2021 |
| AD-00002 | Technická zpráva | Tomas Stanek | 26. 4. 2021 |
| AD-00001 | 2D výkres | Tomas Stanek | |

Table:

| | Element A Label | Element B Label | Category A | Model A | Category B | M |
|--------------------------|-----------------|-------------------------------|-----------------------------|----------|-----------------|-------|
| <input type="checkbox"/> | 3 | plotové pole - tahokov [2-GA] | oplocení 2 [2-WP] | Railings | Objekt 2021.rvt | Walls |
| <input type="checkbox"/> | 6 | plotové pole - tahokov [2-GV] | Fasádní zateplení 150 mm_Bí | Railings | Objekt 2021.rvt | Walls |

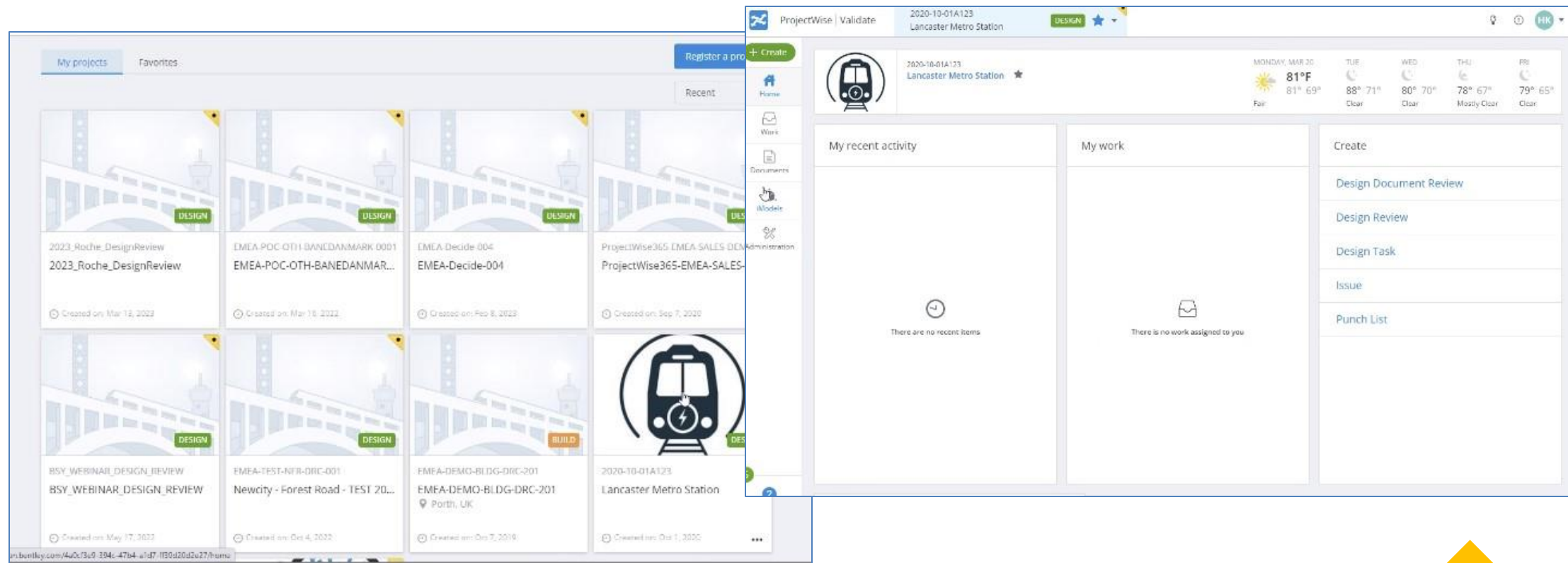
ProjectWise 2023

- Rozšířená autentizace (OpenID)
 - PW, Win, IMS, IMS OIDC, MS 365
- Rozšířená integrace WA a Web
- Zobrazení připomínek v Mstn/Acad
- Vylepšená služba iCS for PDF
 - automatické generování PDF
- Podpora nových verzí OS & DB
- Podpora nových verzí aplikací
 - AutoCAD 2023, Revit, Civil3D, ...



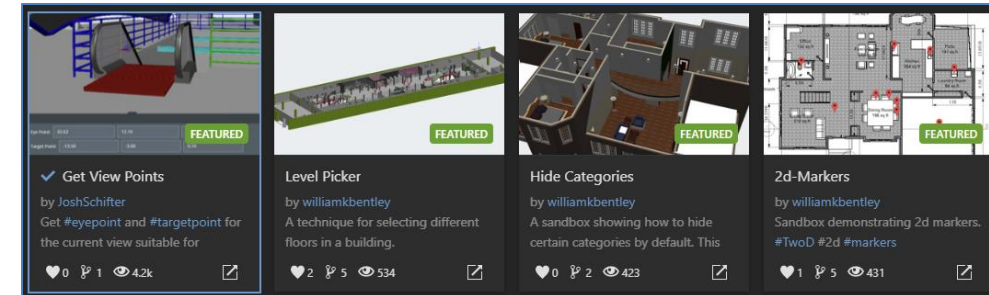
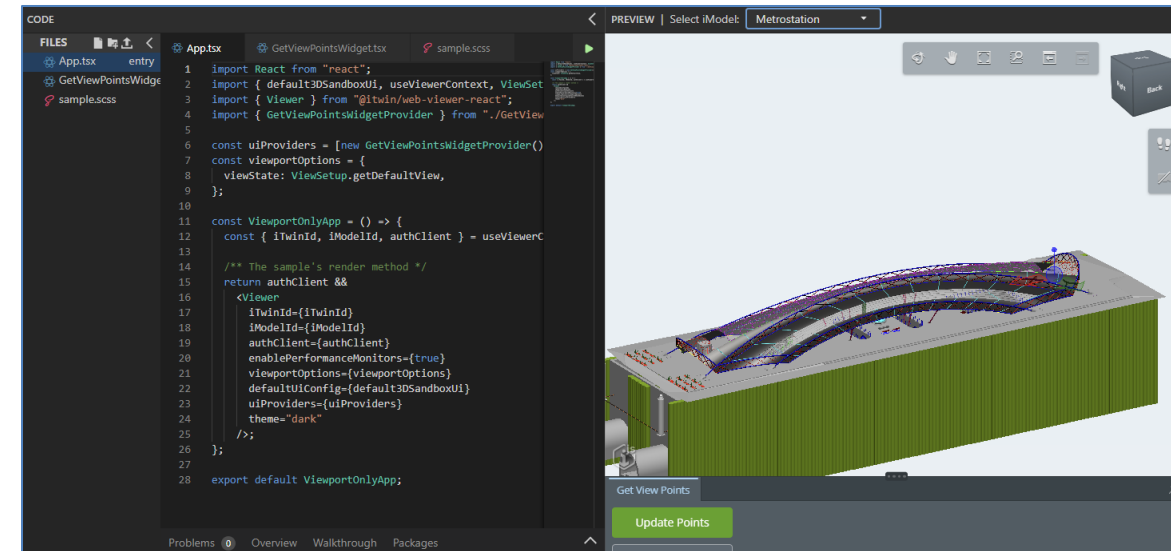
ProjectWise 2023

- Nový Web interface „SYNCHRO Control like“ GUI
- Užší propojení s dalšími produkty ... Synchro, Infrastructure Cloud



Digitální éra (BIM)

- 3D modelování (Mstn a Open produkty)
- Datové standardy (Open)
- Společné datové prostředí (PW)
- Digitální dvojče (iModel/iTwin)
- ...
- Harmonogram výstavby (Synchro)
- Popojení na IoT (PlantSight)



iTwin – Digitální dvojče (iModel)

- Moderní formát pro digitální věk
 - iModel
 - .BIM
- Vhodný pro cloudové zpracování
 - streamování
 - databázový přístup
- Otevřený pro další aplikace
 - iTwin.js

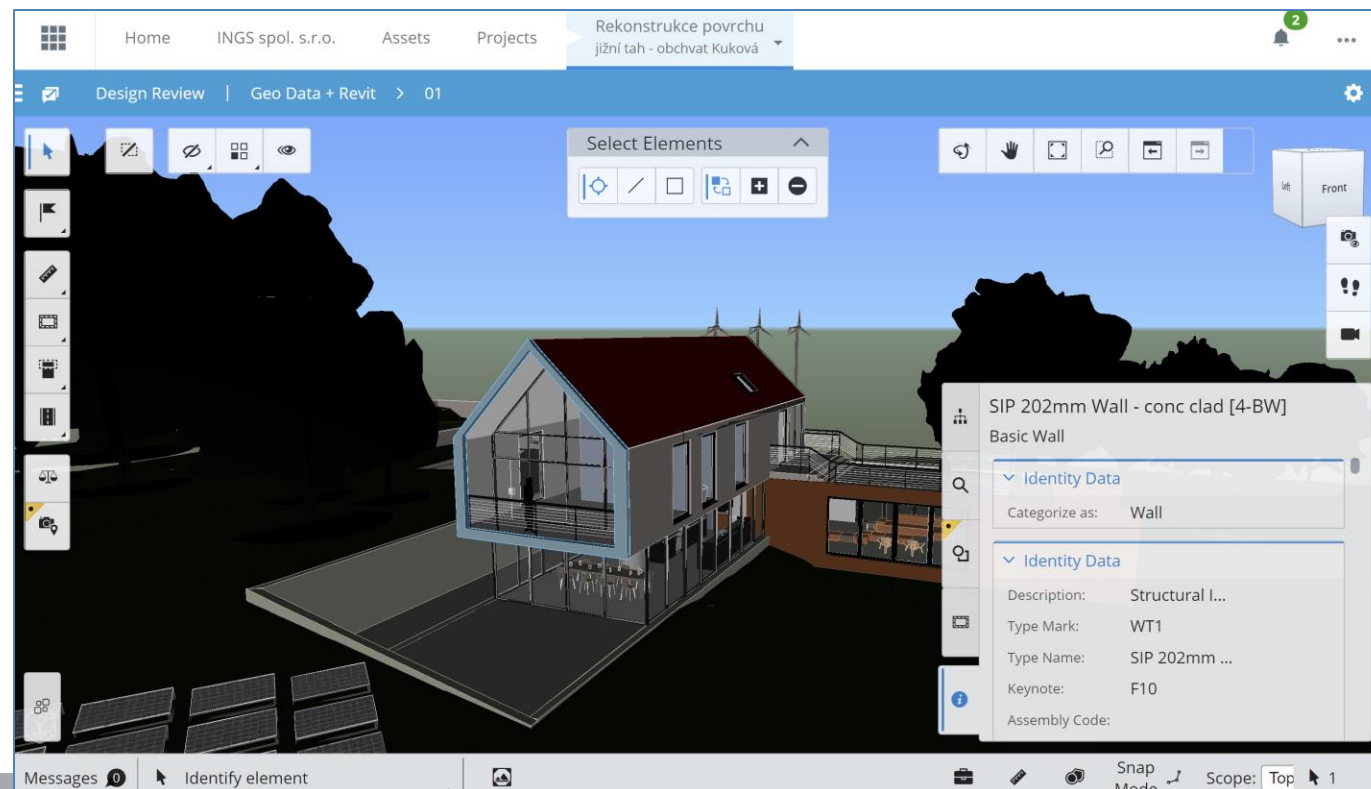
The screenshot displays the iTwin.js application interface. On the left, a 3D model of a construction site is visible, featuring various pipes and structures. On the right, a data table is shown with the following content:

| Hazard # | Activity | Design Type | Initial Risk | Residual Risk | Construction Team |
|----------|--------------|-------------|--------------|---------------|-------------------|
| 16 | Construction | Permanent | 20 | 3 | Construction Team |
| 16 | Construction | Permanent | 15 | | |
| 15 | Construction | Permanent | 15 | 5 | |
| 14 | Construction | Permanent | 15 | | |
| 13 | Construction | Permanent | 20 | | |
| 12 | Construction | Permanent | 15 | | |
| 11 | Construction | Permanent | 20 | 3 | |
| 10 | Construction | Permanent | 15 | 5 | |

Below the table, there is a 'Messages' section with the text 'Identify element'. The right side of the screenshot shows a code editor with JavaScript code for risk management services, including methods like `clearCache`, `clearRiskData`, `getRiskData`, `getRiskDefinition`, and `postRiskData`.

Rozvoj ověřených technologií

- MicroStation (v17, přechod z PD)
- ProjectWise (Web, Drive, Cloud)
- OpenSite – Road – Rail
- Bentley Map (OC Map)
- Open Building
- PLAXIS
- ...



Ďakujeme za pozornosť.

