What’s New in CADE?

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What’s New in CADE?

- The Cost Assessment Data Enterprise (CADE) is an Office of the Secretary of Defense Cost Assessment and Program Evaluation (OSD CAPE) initiative to increase analyst productivity and effectiveness for government analysts by collecting, organizing and displaying data in an integrated single web-based application, improving data quality, reporting compliance and source data transparency. This session will cover new CADE features and capabilities since the last focus group session, including CCDR Data Export, the FlexFile Multi-File export, and the SRDR Data Export.

- Overview:
  - CCDR Data Export
  - Bulk FlexFile Pivot Export
  - SRDR Dimensional Export

CADE Overview

627 Active & 248 Legacy Weapon System Programs

5,183 Prime Contracts
2,171 Subcontracts

41,154 Cost & Software Data Reports

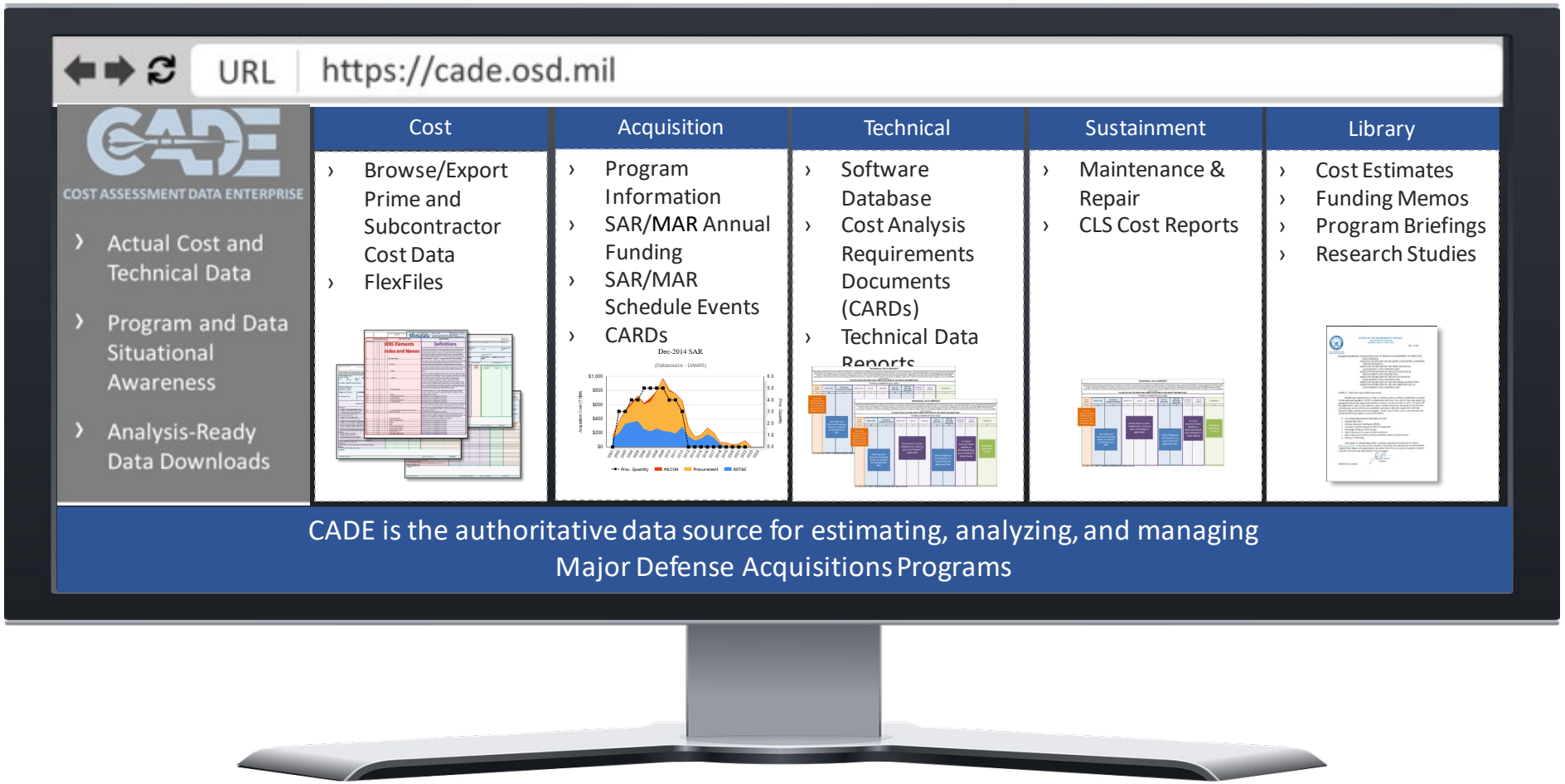
3,086 Government & Industry Users

30 DTM Hub Applications

16,810 Library Documents

7+ TB Database

The Cost Assessment Data Enterprise (CADE) team collects the *proprietary* data required to enable the cost estimating community to perform quality estimates while at the same time minimizing the cost and effort in doing so to enable accelerated acquisition timelines.



CADE Bulk Exports

Attribute	Individual Exports		Bulk Exports	
	The FlexFile (JSON or Excel)	FlexFile Pivot Export (CSV)	CCDR Data Export (Excel)	Bulk FlexFile Pivot Export (CSV)
CADE Metadata			X	X
Contractor Metadata	X	X	X	X
Actual-To-Date Costs and Hours	X	X	X	X
Forecast-At-Completion Costs and Hours	X		X	
Recurring/Nonrecurring Costs and Hours	X	X	X	X
Costs and Hours by Order/Lot	X	X	X	X
Costs and Hours by Unit/Sublot	X	X	X	X
Costs and Hours by End Item	X	X		X
Costs and Hours by Account	X	X		X
CADE Standardized Functional Categories	X	X	X	X
Contractor Reported Functional Categories	X	X		X
Allocation Method ID	X	X		X
Allocation Components (Order/Lot, End Item, WBS, or Unit/Sublot, and % Value)*	X			
Additional Tags	X	X		X
Reporting Period Start Dates & End Dates	X	X		X
Quantity Data- from Quantity Report			X	

CCDR Data Export

Why did we replace the CCDR FlatFile Export?

- Over the years various types of data (beyond the traditional 1921, 1921-1, 1921-2) have been integrated into a single flattened file (2003 CCDRs, 1921-5 and most recently FlexFiles and Quantity data)

- Past Flattened exports are tailored to user roles and preferences, leading to variation of the export in different applications within CADE

- Implementation of FlexFiles/Quantity data policy, new technology & analyst feedback provided a good opportunity to reevaluate how we flatten ALL the CCDR data

- The new data format encapsulates all the CCDR data in an accurate (reflective of what the contractor submitted), consistent (each export will be the same throughout the system), transparent (easily understood), and usable (ready for analysis) manner.

Sample CCDR Data Export

CADE/Reported Metadata – All CADE metadata is provided, for reference and for finding the report(s) again as needed.

Cost Data Summary Tab – 1921 data is present and clearly traceable as 1921 data. Summary elements included.

Functional Cost-Hour Tab – 1921-1, 1921-5 Data clearly marked and presented alongside other functional cost/hour data like 1921-1 or FlexFile.

FCH - 2003 Detail Tab* – Rep Ctr / Sub / Total breakout is provided and clearly identified on an additional tab

Unit Cost Tab – Quantity values exported clearly and with traceability to their source

FlexFile, Quantity Report Data – Fully interleaved with legacy data. FlexFile Data is rolled up from lower levels with all relevant data included.

Export version	CCDR Data Export v1.0 beta
Generated by	CADE Data & Analytics
Generated on	10/11/2022
Reports requested	
Data requested	All
Number of reports	18
Notes	This tab lists the reports included in the export. "Submission Metadata" (col F-AG) comes from the CADE system.

REPORT METADATA					*SUBMISSION METADATA*		
Report ID	**Report Name**	**Report Type**	**Report Version**	**File Names**	**CADE Submission ID**	**CADE Program Name**	**CADE Model**
1868	Delivery Order 2 - LRIP 2	FlexFile, Quantity	1.0	Contract Complete_flexf	25535	Cerberus	Cerberus Autonomous Ve
1867	Delivery Order 2 - LRIP 1	FlexFile, Quantity	1.0	Contract Complete_flexf	25535	Cerberus	Cerberus Autonomous Ve
1866	Delivery Order 1 - EMD P	FlexFile, Quantity	1.0	Contract Complete_flexf	25535	Cerberus	Cerberus Autonomous Ve
1865	Delivery Order 2 - LRIP 2	FlexFile, Quantity	1.0	Annual Submission 2019_	25534	Cerberus	Cerberus Autonomous Ve
1864	Delivery Order 2 - LRIP 1	FlexFile, Quantity	1.0	Annual Submission 2019_	25534	Cerberus	Cerberus Autonomous Ve
1863	Delivery Order 1 - EMD P	FlexFile, Quantity	1.0	Annual Submission 2019_	25534	Cerberus	Cerberus Autonomous Ve
1862	Delivery Order 2 - LRIP 2	FlexFile, Quantity	1.0	Annual Submission 2018_	25533	Cerberus	Cerberus Autonomous Ve
1861	Delivery Order 2 - LRIP 1	FlexFile, Quantity	1.0	Annual Submission 2018_	25533	Cerberus	Cerberus Autonomous Ve
1860	Delivery Order 1 - EMD P	FlexFile, Quantity	1.0	Annual Submission 2018_	25533	Cerberus	Cerberus Autonomous Ve
1859	Delivery Order 2 - LRIP 2	FlexFile, Quantity	1.0	Annual Submission 2018_	25533	Cerberus	Cerberus Autonomous Ve
1858	Delivery Order 2 - LRIP 1	FlexFile, Quantity	1.0	Annual Submission 2018_	25533	Cerberus	Cerberus Autonomous Ve
1857	Delivery Order 1 - EMD P	FlexFile, Quantity	1.0	Annual Submission 2018_	25533	Cerberus	Cerberus Autonomous Ve
1856	Delivery Order 2 - LRIP 1	FlexFile, Quantity	1.0	EMD Phase Complete_fle	25532	Cerberus	Cerberus Autonomous Ve
1855	Delivery Order 1 - EMD P	FlexFile, Quantity	1.0	EMD Phase Complete_fle	25532	Cerberus	Cerberus Autonomous Ve
1854	Delivery Order 1 - EMD P	FlexFile, Quantity	1.0	Annual Submission 2016	25531	Cerberus	Cerberus Autonomous Ve
1853	Delivery Order 2 - LRIP 2	FlexFile, Quantity	1.0	Contract Award_flexfile.	25526	Cerberus	Cerberus Autonomous Ve
1852	Delivery Order 2 - LRIP 1	FlexFile, Quantity	1.0	Contract Award_flexfile.	25526	Cerberus	Cerberus Autonomous Ve

CADE Metadata | Reported Metadata | Cost Data Summary | Functional Cost-Hour | FCH 2003 Detail | Unit Cost

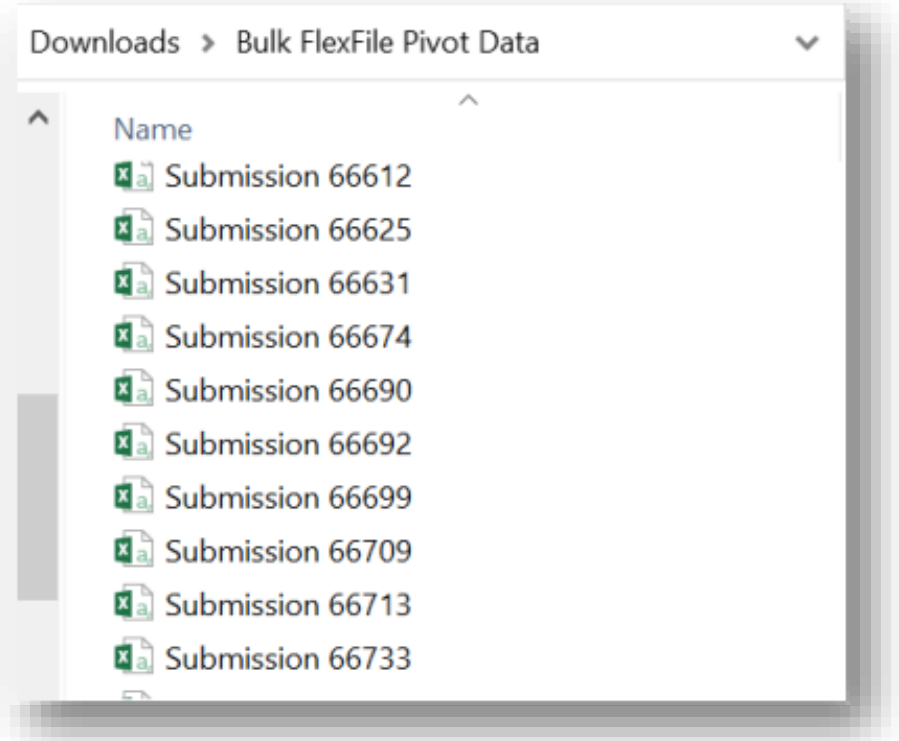
* FCH 2003 Detail tab will only contain data if an included 1921 is in the 2003 format. 1921 (2003 Format) also included (w/o breakout) in Functional Cost-Hour tab

Bulk FlexFile Pivot Export

Bulk FlexFile Pivot Export

- This export provides the time-phased actual-to-date data for all FlexFiles in a flattened, pivot-friendly format. The data for each FlexFile is provided as a CSV file which is then packaged into a collection of CSVs within a single ZIP file, identified by the CADE submission ID.

- **These individual .csv FlexFiles will contain:**
  - CADE System Metadata
  - ID and Name Values from the *Actual Cost and Hour Data Table** from the FlexFiles
  - WBS Element Levels for the possibility of roll-up



** This export will only contain Actuals to Date and not Forecast At Completion Costs*

Bulk FlexFile Pivot Export – Things to Note

IMPORTANT NOTICE:

- The initial version of the FF export was provided to a small group of analysts that participate in the CADE Requirements Working Group (WG). Initial feedback for implementation was positive. We are continuing our efforts to engage with the CADE Webinar forum to better understand use cases, preferred formatting, and utility of the Bulk FlexFile Pivot export.

- We have released an initial/prototype version of the Bulk FlexFile Pivot into CADE to allow a larger group of DoD analysts the opportunity to start utilizing this export and provide feedback and develop various use cases of this data. These use cases will allow us to further define requirements for providing an export with multiple FlexFiles at the lowest level of data

- We want to emphasize this is a prototype version (subject to change) and we are encouraging users to take the time to use the files so that we can understand how they are using those files to better define requirements.

- Does not include Pivot template, as compared to Individual FlexFile Pivot Export

SRDR Dimensional Export

Background

- SRDR DEV, MAIN, & ERP forms have been updated to be XML & Excel machine-readable (August 2021)
- XML & Excel Machine Readable SRDR forms are officially approved – add link
- cPet Desktop, Web, and CSDR Submit-Review have been updated to:
  - Create SRDR Supplements for CSDR Plans
  - Generate XML/Excel compatible SRDR forms for Industry
  - Validate Industry-prepared SRDR forms against CSDR Plans
  - Ingest Industry-submitted SRDR forms
- XML & Excel Machine-Readable SRDR DEV, MAIN, and ERP forms allow Bulk Exports via Data & Analytics application.
- The CADE Team has successfully migrated all submitted 3026-1, -2, and -3 SRDR submissions into machine-readable formats, validated in Submit-Review, and made available in Data & Analytics
  - Available SRDR Data (as of October 2022) – 179 SRDR Dev, 83 SRDR MX, 37 SRDR ERP

Sample SRDR Dev Dimensional Export

Export version	SRDR DEV Data Export v1.0
Generated by	SRDRDB
Generated on	10/20/2022
Reports requested	All
Data requested	All
# of Reports	6

Report ID	CADE Submission ID	CADE Program Name	CADE Contract Number	CADE Reporting Contractor	Major Program Name	Report Cycle	Report As Of Date	Release ID	Release Name	Release Completed?	CSCI ID	CSCI Name	WBS Element Code
4	25527	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Initial	4/1/2015	1	CAV Software Release 1		C1	Sensor Processing	1.1.1.15.1
4	25527	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Initial	4/1/2015	1	CAV Software Release 1		C2	Autonomous Navigation	1.1.1.15.2
4	25527	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Initial	4/1/2015	1	CAV Software Release 1		C3	Vehicle Control	1.1.1.15.3
4	25527	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Initial	4/1/2015	2	Training Software Release 1		C4	Vehicle Simulator	1.6.4.1
1	25527	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Initial	4/1/2015	1	CAV Software Release 1		C1	Sensor Processing	1.1.1.15.1
1	25527	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Initial	4/1/2015	1	CAV Software Release 1		C2	Autonomous Navigation	1.1.1.15.2
1	25527	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Initial	4/1/2015	1	CAV Software Release 1		C3	Vehicle Control	1.1.1.15.3
1	25527	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Initial	4/1/2015	2	Training Software Release 1		C4	Vehicle Simulator	1.6.4.1
6	25528	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Interim	4/30/2016	1	CAV Software Release 1		C1	Sensor Processing	1.1.1.15.1
6	25528	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Interim	4/30/2016	1	CAV Software Release 1		C2	Autonomous Navigation	1.1.1.15.2
6	25528	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Interim	4/30/2016	1	CAV Software Release 1		C3	Vehicle Control	1.1.1.15.3
6	25528	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Interim	4/30/2016	2	Training Software Release 1		C4	Vehicle Simulator	1.6.4.1
2	25528	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Interim	4/30/2016	1	CAV Software Release 1		C1	Sensor Processing	1.1.1.15.1
2	25528	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Interim	4/30/2016	1	CAV Software Release 1		C2	Autonomous Navigation	1.1.1.15.2
2	25528	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Interim	4/30/2016	1	CAV Software Release 1		C3	Vehicle Control	1.1.1.15.3
2	25528	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Interim	4/30/2016	2	Training Software Release 1		C4	Vehicle Simulator	1.6.4.1
3	25529	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Final	9/30/2019	1	CAV Software Release 1	X	C1	Sensor Processing	1.1.1.15.1
3	25529	Cerberus	Z123D4-15-D-7890	Con-Tractor, LLC	Cerberus Autonom	Final	9/30/2019	1	CAV Software Release 1	X	C2	Autonomous Navigation	1.1.1.15.2

... | Reported Metadata | Part 1, Release Level | **Part 1, Release-CSCI Level** | Part 2, Effort | Part 2, Time-Phased Effort | ...

This Export includes:

- ❑ Metadata
- ❑ Part 1, Release Level
- ❑ Part 1, Release- CSCI Level
- ❑ Part 2, Effort
- ❑ Part 2, Time-Phased Effort
- ❑ Part 1, Activity Definitions
- ❑ Part 1, Outsourced Dev Orgs
- ❑ Part 1, Software Reuse
- ❑ Part 1, COTS, GOTS, Open Source
- ❑ Part 1, SLOC Detail
- ❑ Part 1, Agile Detail
- ❑ Part 1, Function Point Detail
- ❑ Part 1, RICE-FW Detail
- ❑ Part 1, Other Measures Detail
- ❑ Part 1, Activity Schedule

- ❑ SRDR data is flattened (as much as possible) into an easy-to-use, filterable, and analysis-ready format
- ❑ Export Tabs track to SRDR form tabs (Metadata, Release Level, CSCI Level, Effort)
- ❑ Metadata tab includes both CADE & Report Metadata
- ❑ Update (9/2/2022) Added Part 2, Time-Phased Effort tab in the SRDR Dev and ERP Dimensional Export that includes the ATDs for the time phased data on Part 2

Questions?

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BACKUP

CCDR Export Advantages and Use Cases

Advantages

- ❑ CCDR Data is accurate, consistent, transparent, and analysis ready
- ❑ Combines 1921 Series with FlexFile/Quantity Data into one normalized export
- ❑ Greatly Improved Performance over CCDR FlatFile Export

Potential Use Cases

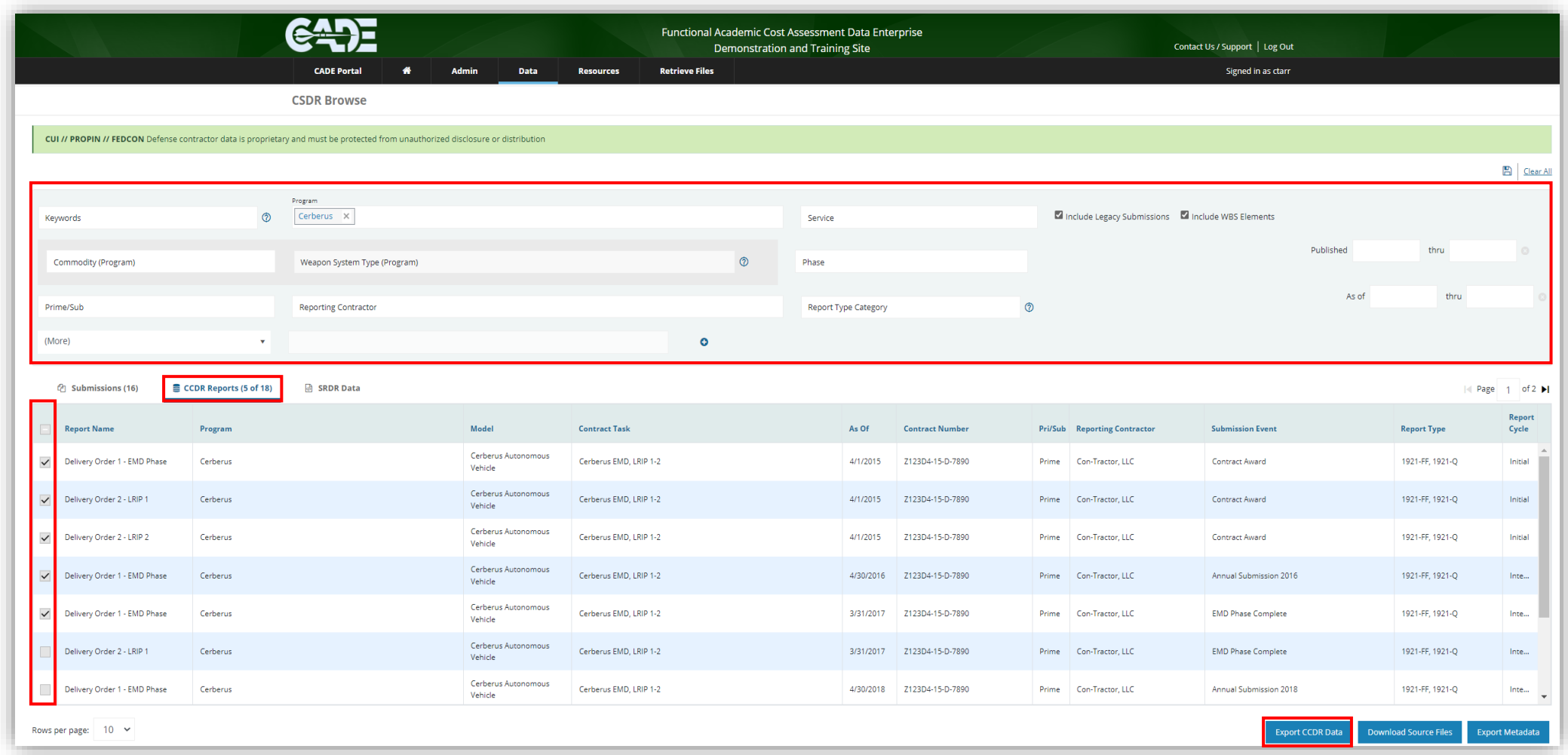
- ❑ Analysis across a program's life span
  - ❑ The user has the capability to come FlexFiles and 1921 Legacy Series in a correct and accurate manner at a higher level, while also getting an opportunity to look at the quantity data associated with both the legacy series as well as the FlexFile & Quantity data
- ❑ Larger analysis that includes multiple programs
  - ❑ Analysis of a specific weapon system type, commodity, phase/milestone, Order/Lot
  - ❑ Analysis of a specific WBS element across program submissions (i.e., SEPM)
  - ❑ Comparison of ATD vs FACs

Where can I access this export in the system?

1. Select CCDR Reports, then Use search features to refine CCDR report results.

2. Use the check boxes to include/exclude reports from export.

3. Select “Export CCDR Data” to batch the export



Bulk FlexFile Pivot Export - Advantages and Use Cases

Advantages

- This takes multiple FlexFiles and allows them to be exported at the account level of the data.
- Bulk Download contains all approved FlexFile available in CADE.
- Analysis ready – pivotable (single FF submission), ready to load into Data Science Tool

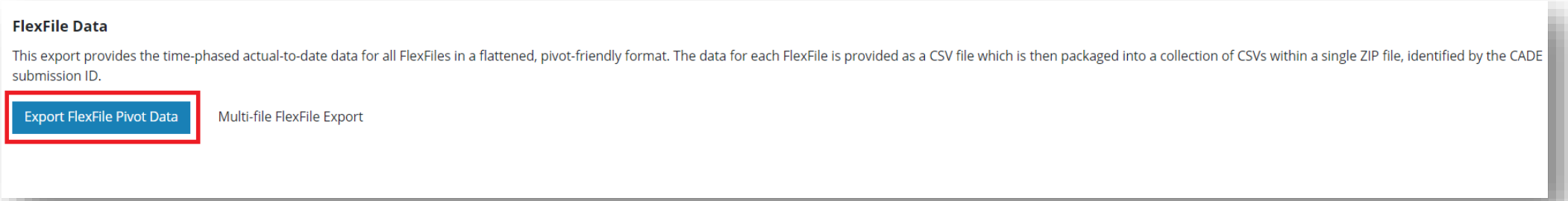
Potential Use Cases

- Ideal for Comparison of a FlexFile against a earlier or later submission, at lower levels of detail
- Includes CADE metadata, so Bulk Export data can be tied to higher levels of CCDR data
  - Examples: Inclusion of FACs, SRDR Part 2 vs FlexFile comparison

Where can I access this export in the system?

Select “Bulk Exports” in D&A Home Page

On Bulk Exports page, Select “Export FlexFile Pivot Data” to begin download



Advantages and Use Cases

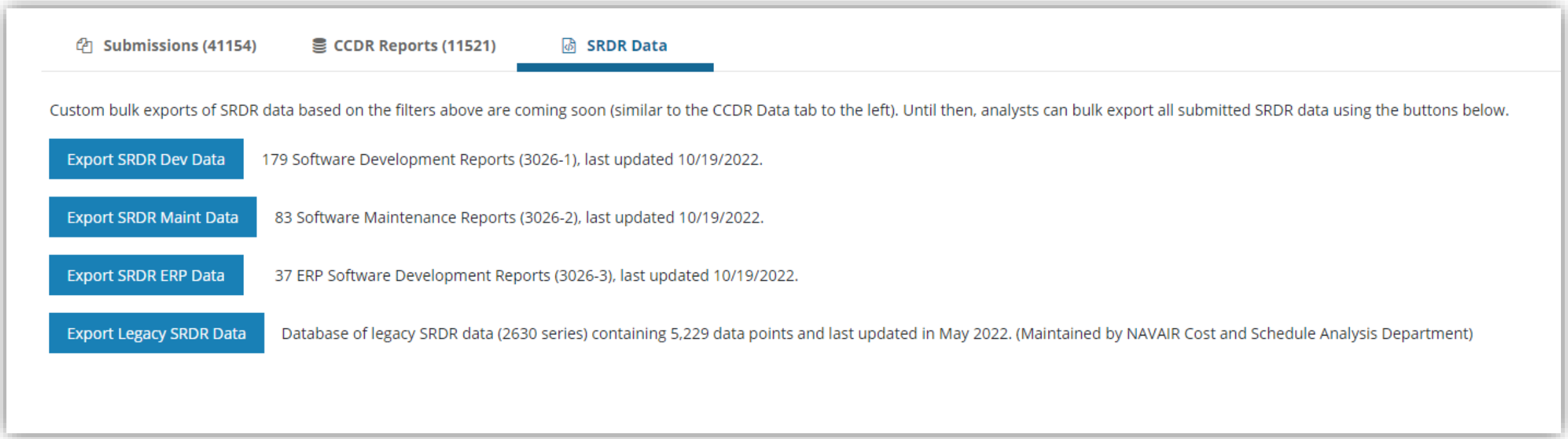
Advantages

- ❑ Analysis Ready, Filterable, and contains only approved SRDR (3026 Series) Submissions
- ❑ All SRDR Form fields represented in export
- ❑ Includes normalized CADE Metadata for cross-program analysis

Potential Use Cases

- ❑ Easily view data from a large Software Product(s) with many Releases/CSCIs
- ❑ Large-scale analysis of Software Sizing (SLOC, Hours by Development Methodology, Agile)
- ❑ Tying of time-phased SRDR Part 2 data to FlexFile Actuals-to-Date data
- ❑ Comparison to other normalized Software Databases (NAVAIR SRDRDB)

Export Options

Selecting the SRDR Data tab will direct the user to a number of bulk exports of SRDR data

- ❑ Export SRDR Dev, Maint, ERP Data – Custom Bulk Export of all approved SRDR reports (by report type)
- ❑ Export Legacy SRDR Data – Flattened version of NAVAIR SRDR DB (2630 series, SRDR Initial, SRDR Final Reports)