

ADS 2.0

Authoritative Data Source (ADS) is possibly *the most important concept* for a user in the data exchange environment.

ADS is defined as the repository or system that contains the data and attributes that are considered to be the primary source for this information. This is not to be confused with System of Record, which is a data management term for an information storage system (commonly implemented on a computer system, e.g. FireCode, Final Fire Reporting Systems) that is the final or highest ADS for a given data element or piece of information.

In order to explain it, let's look at some example ADS hierarchies.

Hierarchy	Fire Reporting	CAD	ICS209	WFDSS	FireCode
Default	R	10	8	8	2
ICS209	R	8	10	10	2

In ADS, the higher the number the higher the authority. So, in the above example - for the Default - FireCode is a 2, ICS209 and WFDSS are 8's, and the CAD is a 10. CAD has the ultimate authority over this data element. Any ADS value that is the same makes the data element interchangeable - WFDSS and ICS209 can update this data element back and forth.

Default ADS

1. Data element first populated by FireCode. FireCode, as the LastModifiedBy system, can continue to update the data element until any other write system in the ADS makes a change to that specific piece of data.
2. An ICS209 user decides that FireCode had the wrong value; the user could edit the data and FireCode could no longer modify it because they are lower in the ADS. Now the only systems that can edit the data are WFDSS, ICS209, and CAD.
3. The CAD user could then determine that they have better data than the other systems have entered up until this point, and they enter it into the CAD. *From this point forward the only system that can update the data is the CAD.*

ICS209 ADS

What happens when the ADS switches from the Default to ICS209? Switching the ADS does not automatically mean all data elements become editable by 209 and WFDSS – the Business has determined that only a selected set of data elements change ADS with the hierarchy switch. The values of 10 and 8 flip flop and the systems interact with the data accordingly.

Default ADS versus ICS209 ADS Data Elements

It is possible to change the Default ADS to ICS209 ADS in several CAD systems, but one should note that this does not change all data elements. The following list outlines the elements that do change when the ADS is switched.

DailyAcres
TotalIncidentPersonnel
FireMgmtComplexity
IncidentCommanderName
Fatalities
Injuries
ResidencesDestroyed

ResidencesThreatened
OtherStructuresDestroyed
OtherStructuresThreatened
EstimatedCostsToDate
EstimatedContainmentDate
PercentContained
POOLatitude
POOLongitude

When the ADS is switched, WildCAD will read the following data elements back in to WildCAD:

DailyAcres
ContainmentDateTime
ControlDateTime
FireOutDateTime
IncidentCommanderName
POOLatitude
POOLongitude

ICS209 back to Default ADS

Interestingly enough, and important to note however, is that just because the ADS has switched, the system that last modified a particular data element still has the ability to update until a system with a higher ADS steps in and actually changes that specific data element. An example is DailyAcres:

1. CAD turns the ADS from Default to ICS209 and 209 merrily goes along pushing updated acres when the 209 is approved. CAD cannot send acres to IRWIN at this point because it is an 8 to ICS209 and WFDSS' 10.
2. There comes a point in the life of the incident where the dispatcher determines the ADS should go back to Default. The ADS value switches and CAD is once again a 10 and ICS209/WFDSS an 8.
3. Since the 209 or WFDSS were the last system to modify the daily acres, they can continue to update the value until the CAD provides a new value for daily acres. Then, and only then, do 209 and WFDSS get locked out of updating the data element.